

# IX International Origami Internet Olympiad

## Round 2



© Andrey Ermakov

## Russia 2021

# IX International Origami Internet Olympiad

Edited by Andrey Ermakov

Test folding by Peter Stein,

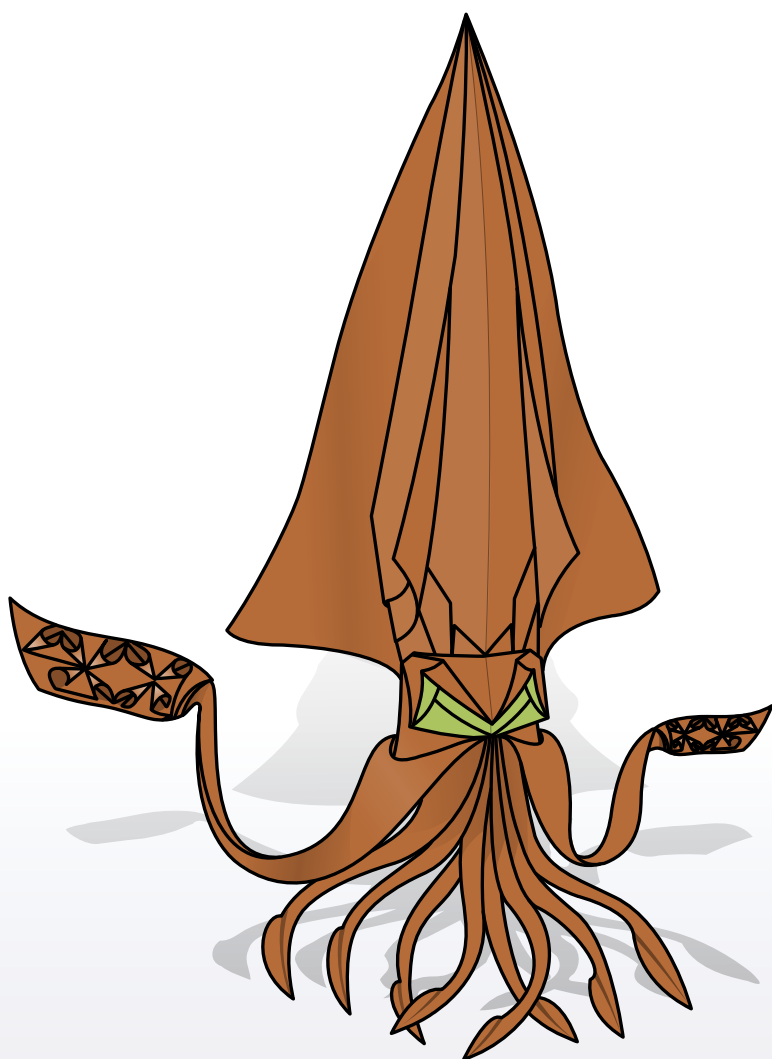
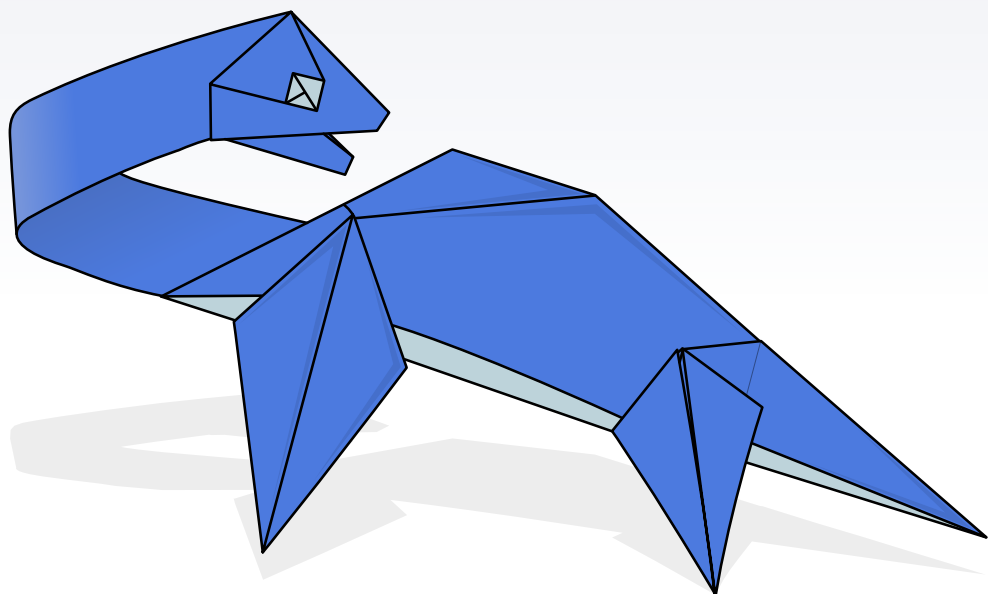
Dzmitry Lysiuk,

Anhelina Patsevich

Cover by Anhelina Patsevich

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# IX International Origami Internet Olympiad



## Jury:

Andrey Ermakov – founder of the olympiad

Dzmitry Lysiuk – IOIO-2011, IOIO-2015 champion

Peter Stein – IOIO-2014 champion

Anhelina Patsevich – origami artist

## Designers:

Alejandro Pascual Marquez (Spain)

Jun Zi You (China)

Anhelina Patsevich (Belarus)

Andrey Ermakov (Russia)

Peter Keller (Germany)

Edward Mistretta (USA)

Arseni Kazhamiakin (Belarus)

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Olympiad is conducted in the Internet.

All official announcements are available on the web:

- [snkhan.co.uk](http://snkhan.co.uk)
- [instagram.com/ermakov\\_origami](https://www.instagram.com/ermakov_origami)

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## Rules:

1. Any type of paper can be used.
2. Participants are allowed to paint and glue models if it would not prevent identification of all elements of the model (including pre-creased lines defining the assembly process). This rule does not apply to the participant's own design.
3. Only photos never published before the olympiad are allowed.
4. Each model should be photographed from at least three angles to clearly display all the details. Low quality photos will not be considered. Recommended size of pictures is from 640x640 to 1500x1500 pixels. Please don't send us smaller pictures and don't combine several photos into one!
5. Minimal editing of the pictures is allowed as long as it doesn't affect the appearance of the model. E.g. you can crop photos, reduce the noise, change color balance but you must not add, erase or change any details.
6. Upload the photos to your profile before the deadline (November 25). Check the timer in your profile.
7. The winners of the first round are determined based on the number and quality of completed tasks. Check your profile for the further instructions.
8. Participants should not upload photos of their round 2 models to the Internet until round 2 ends (November 25).

## Task №1

# Elasmosaurus

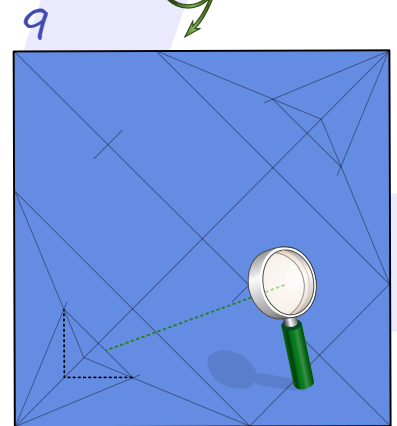
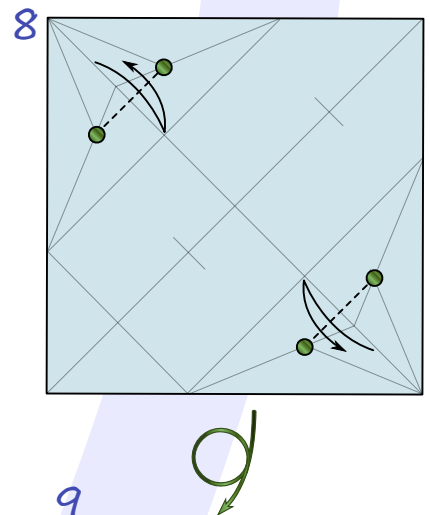
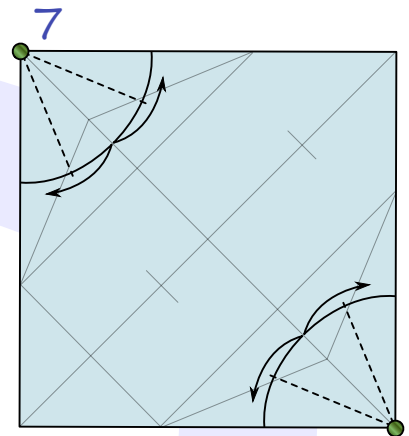
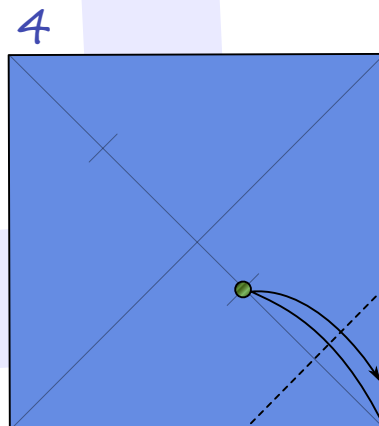
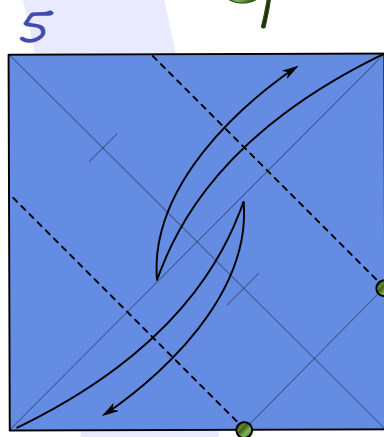
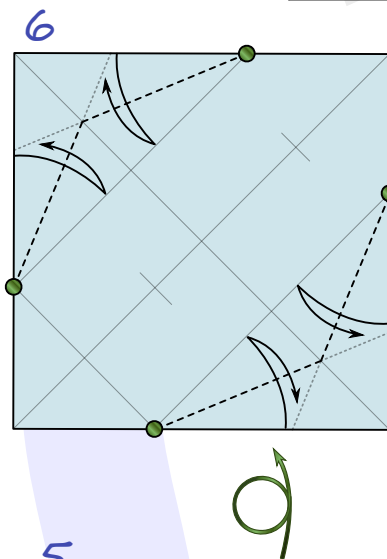
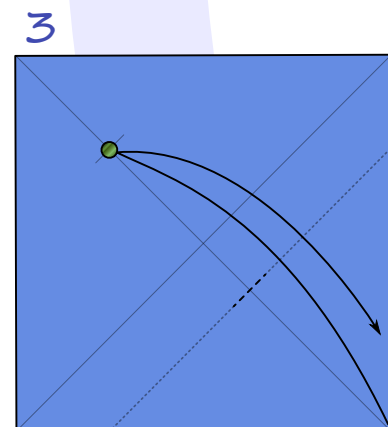
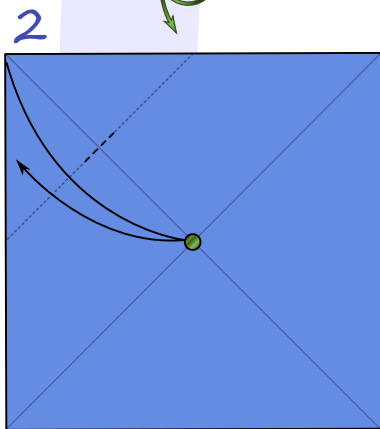
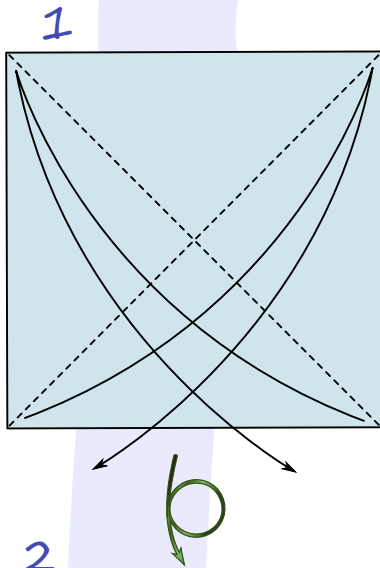
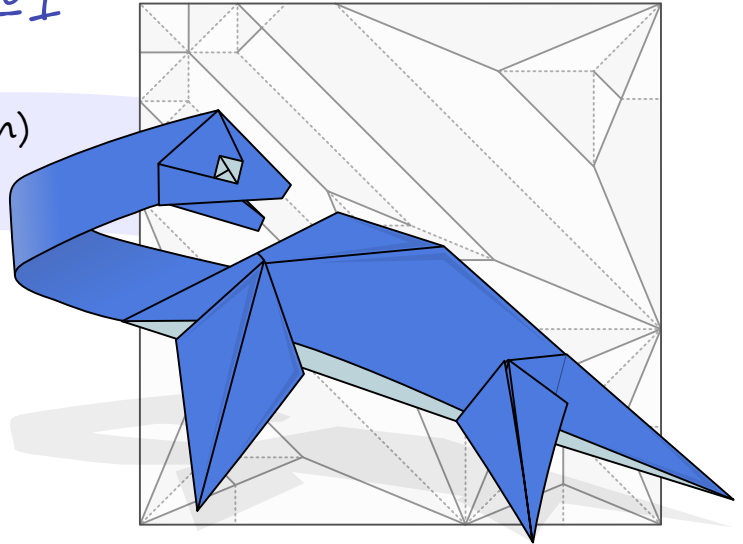
Alejandro Pascual Marquez (Spain)

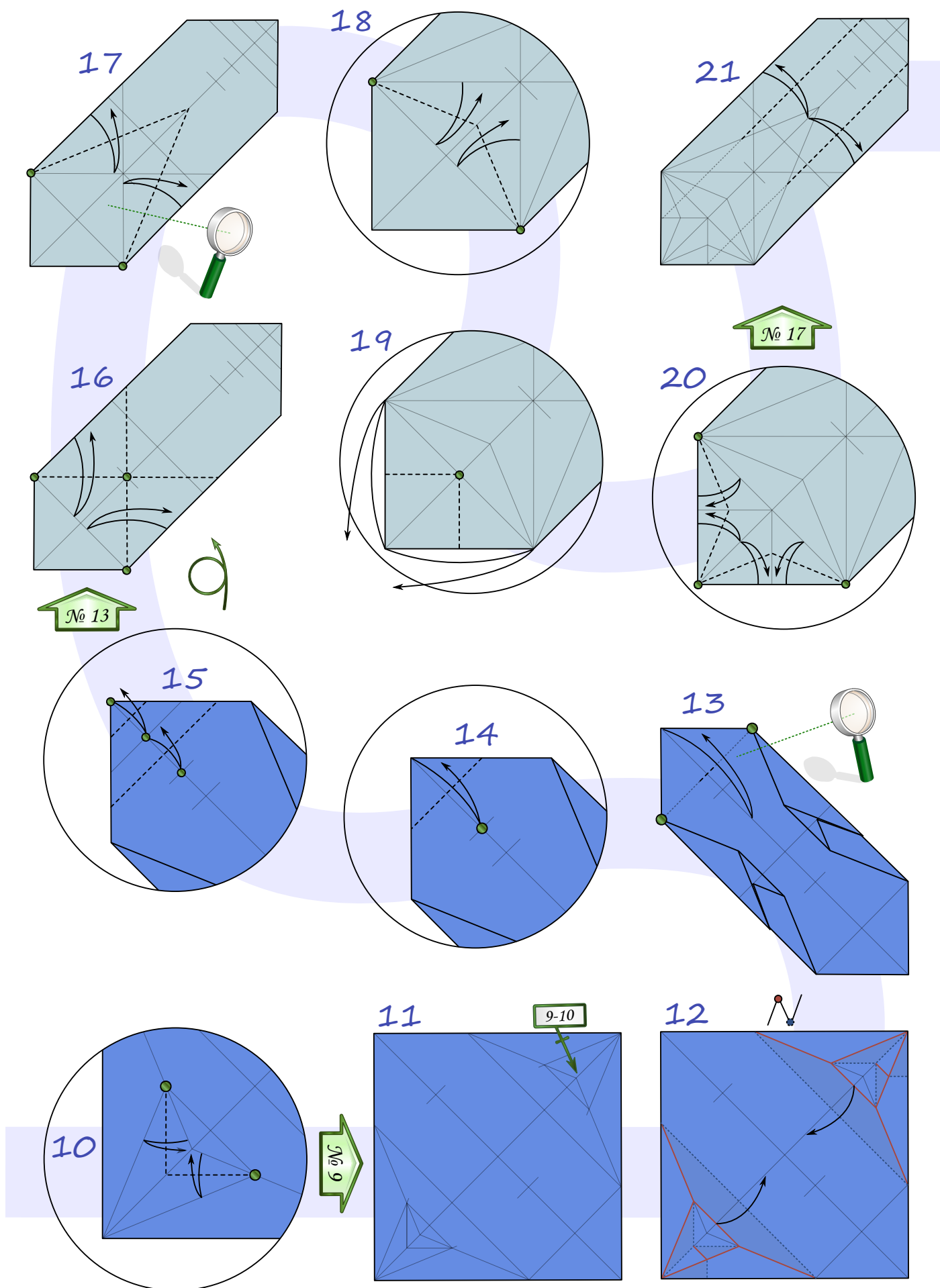
Difficulty: \*\*\*\*\*

Paper: 40-50 g/m<sup>2</sup>

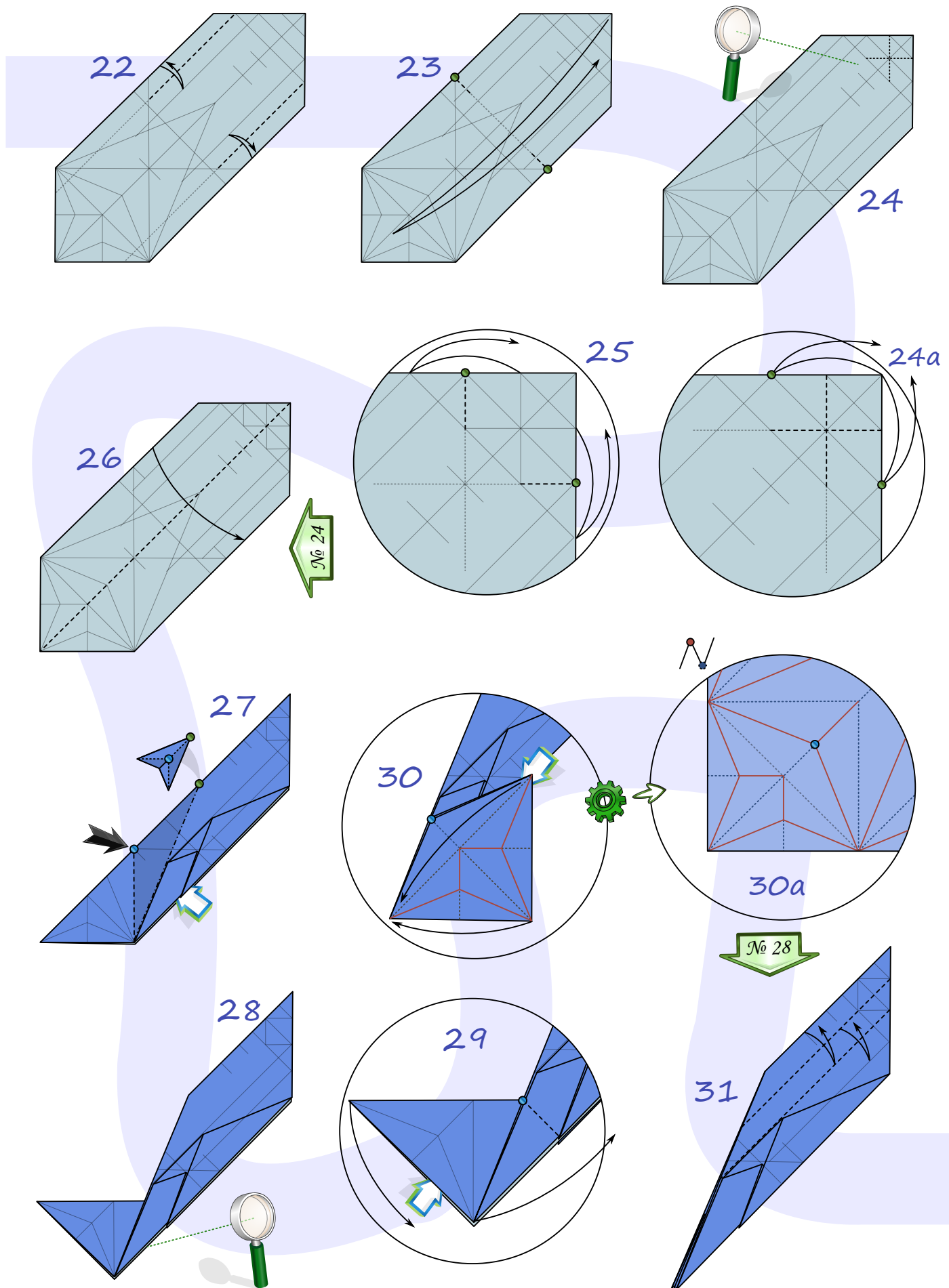
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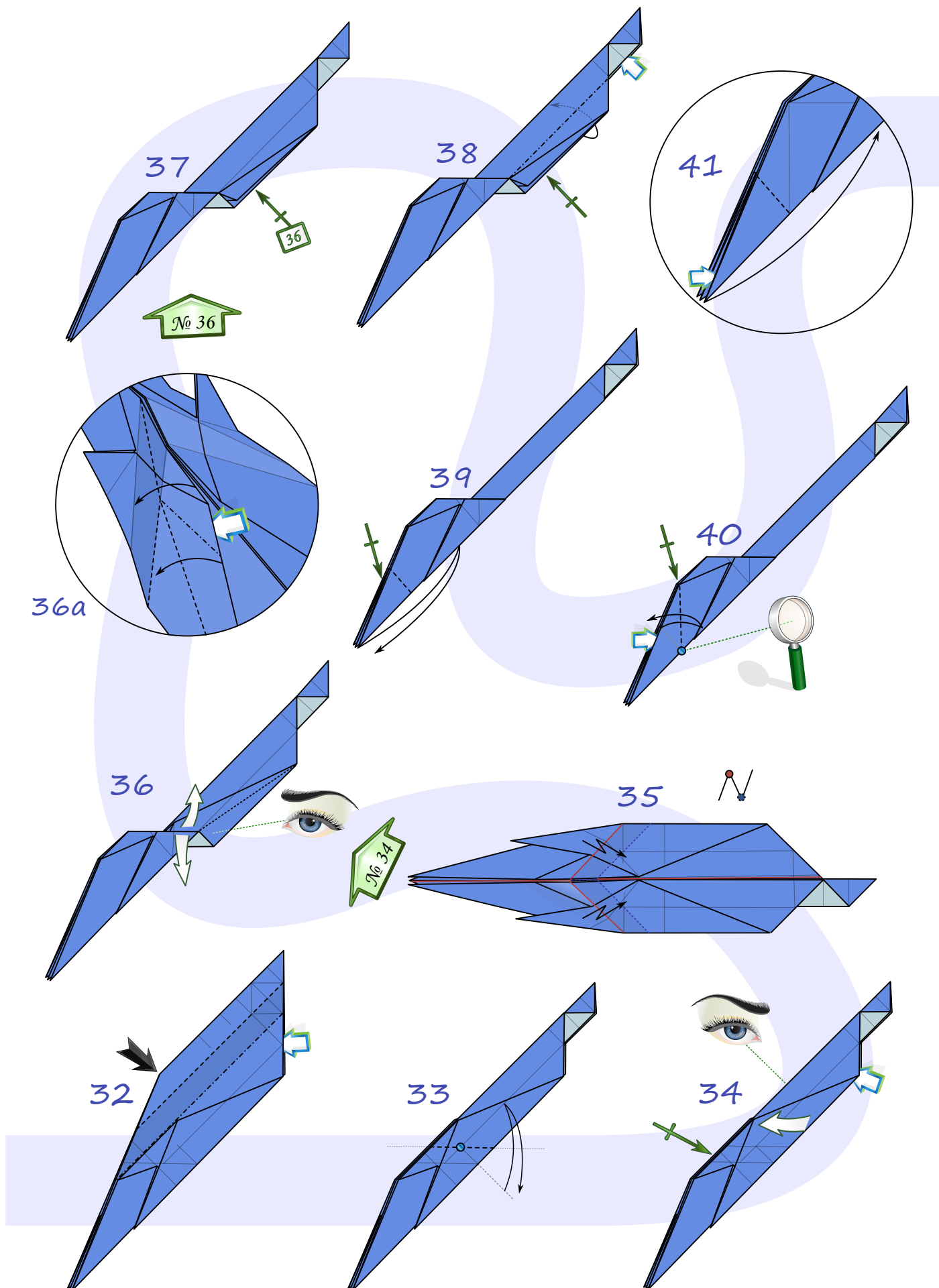
Max score: 5 points

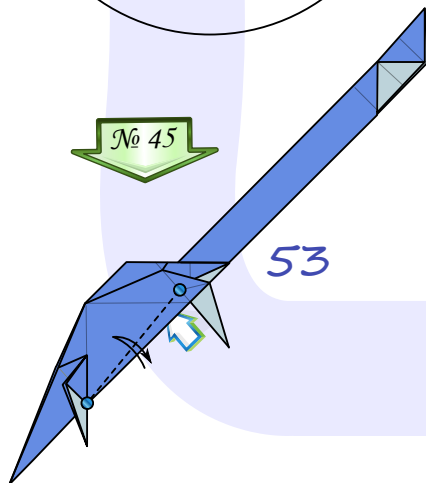
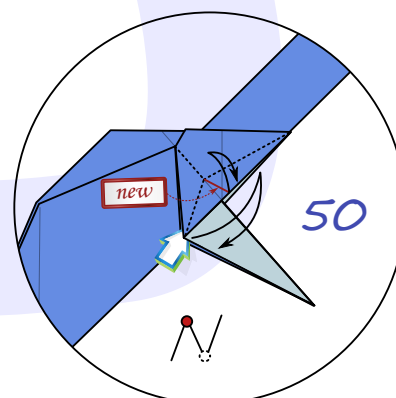
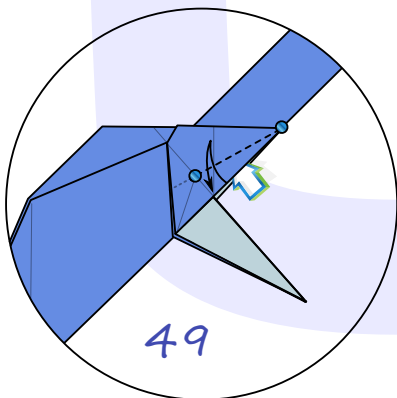
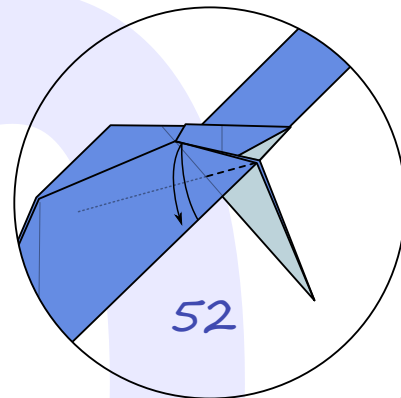
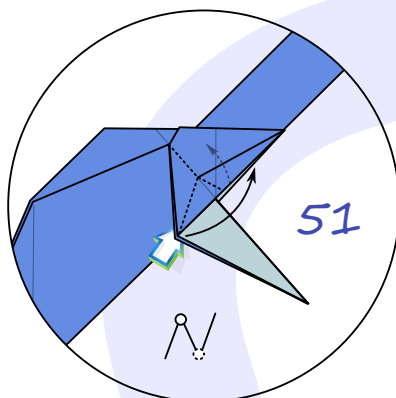
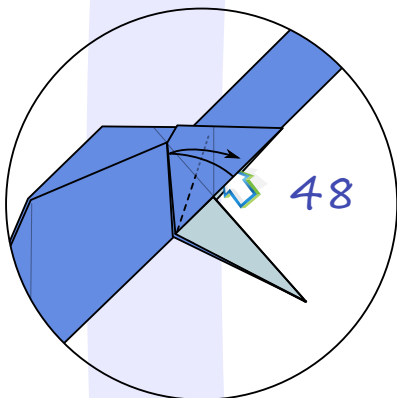
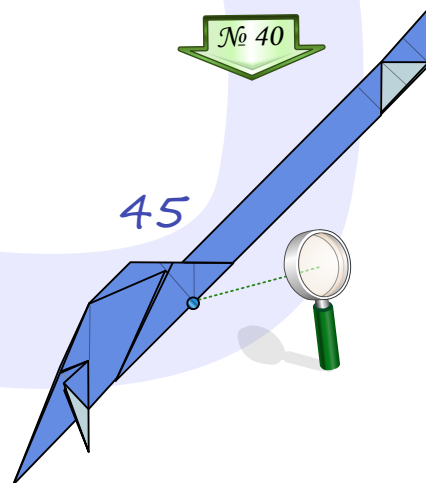
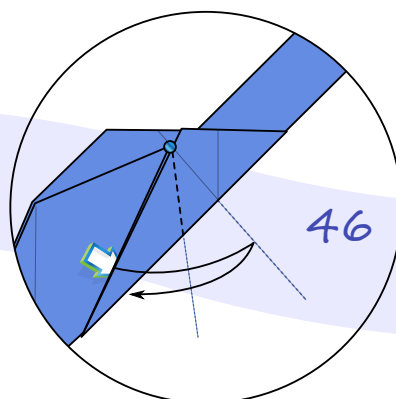
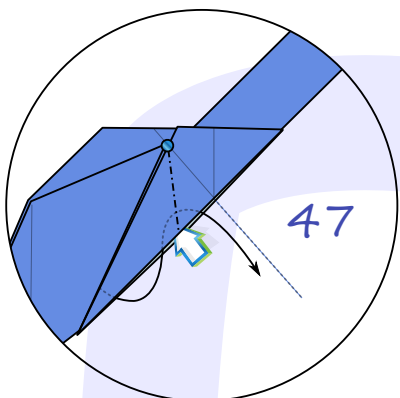
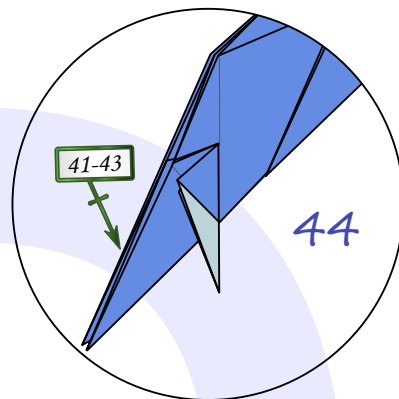
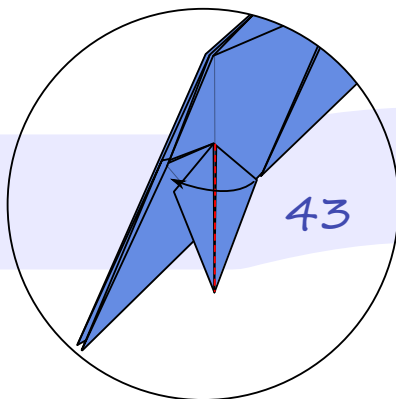
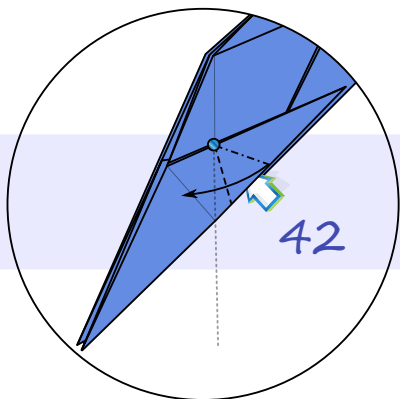


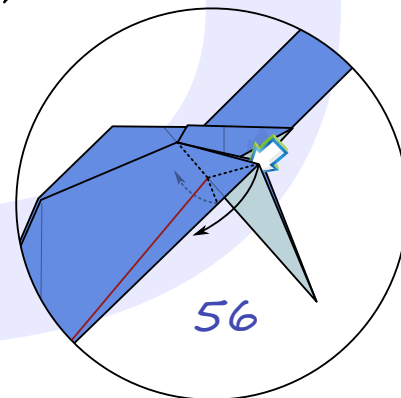
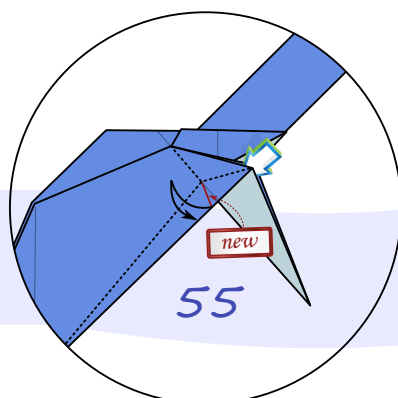
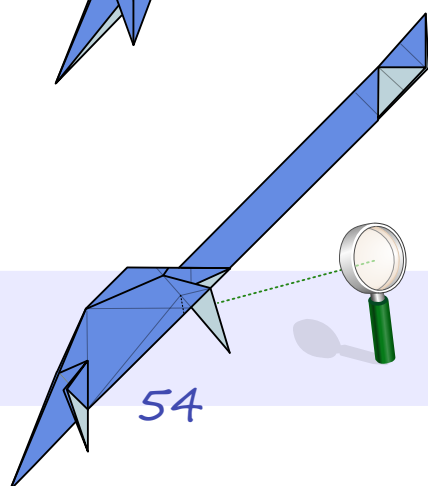
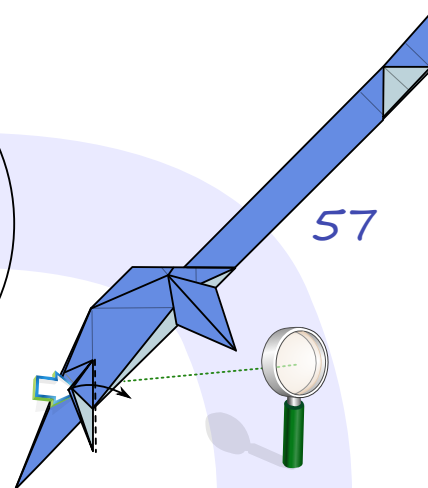
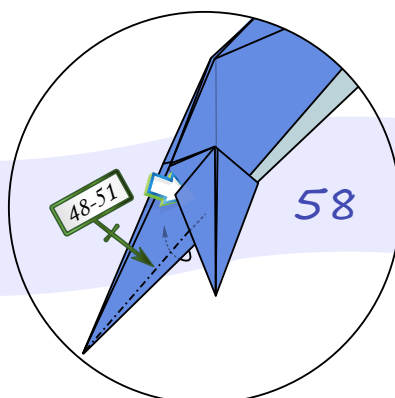
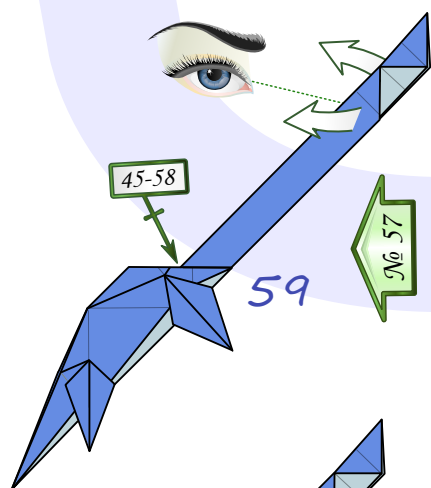
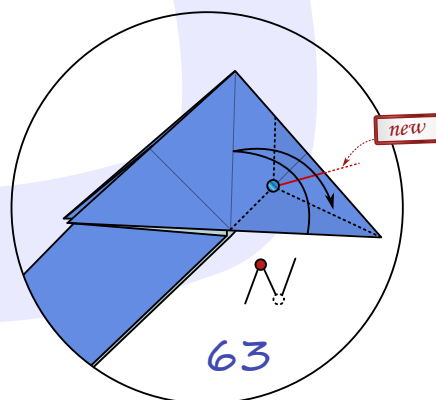
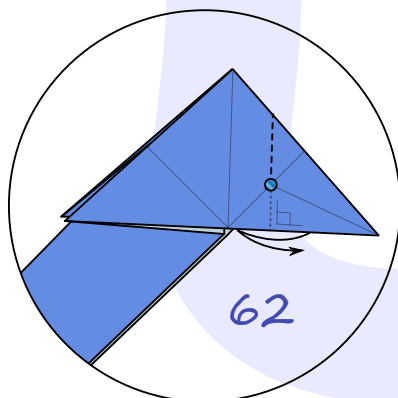
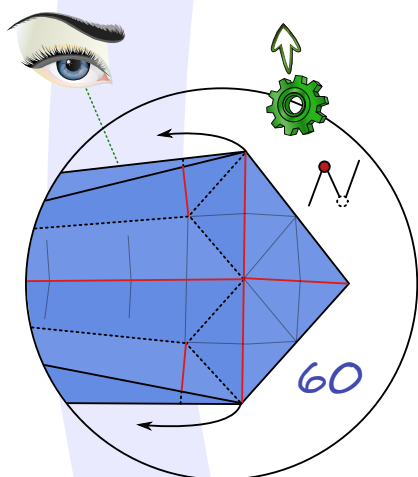
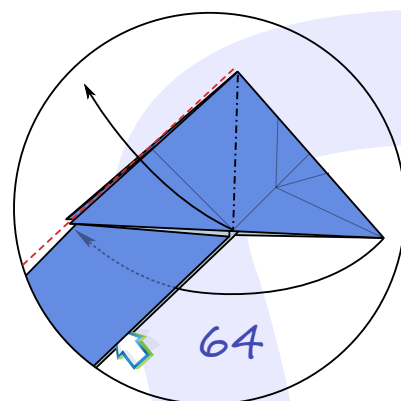
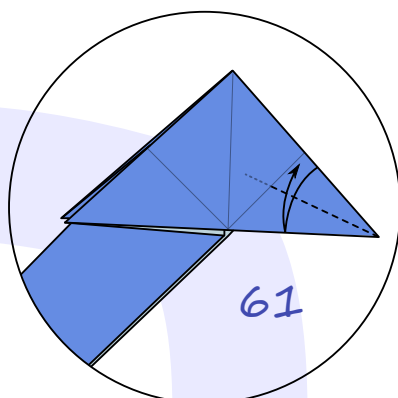
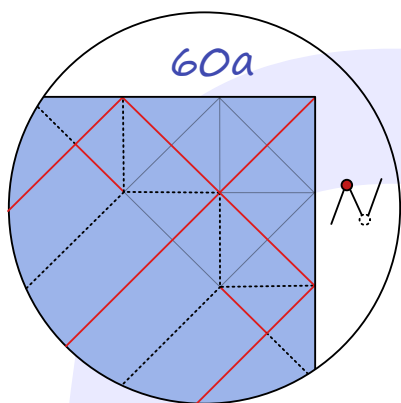


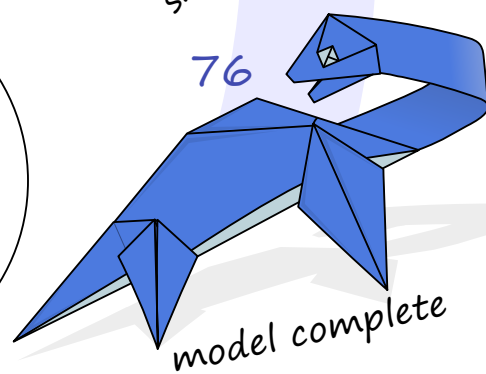
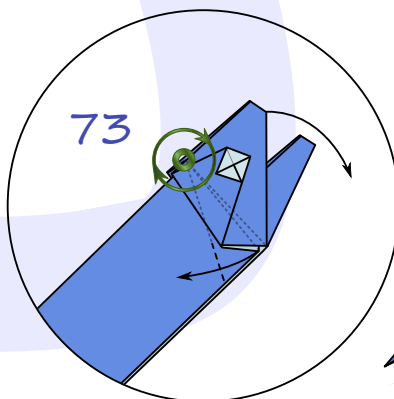
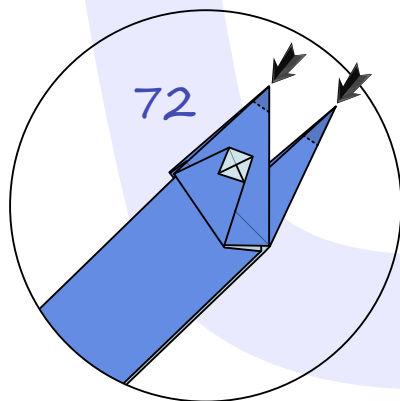
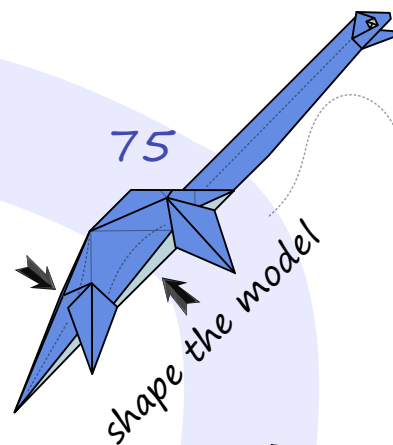
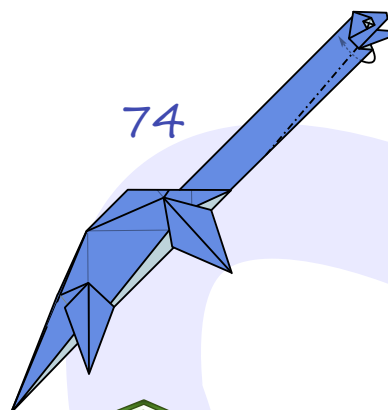
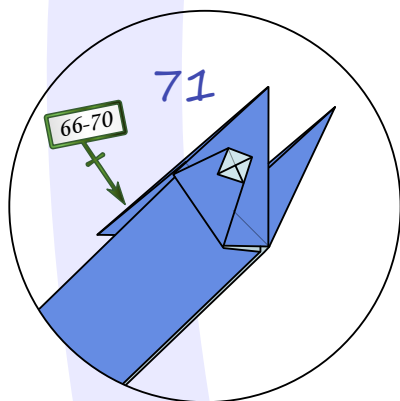
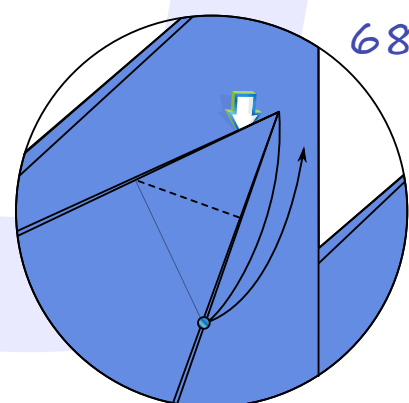
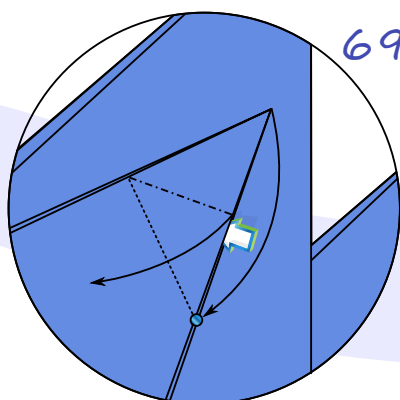
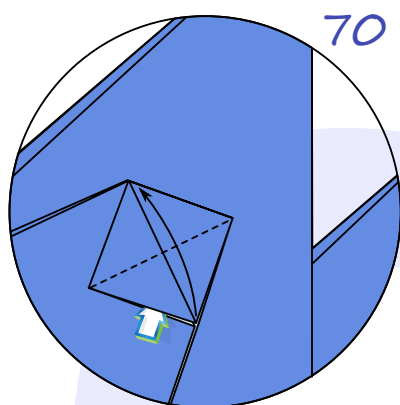
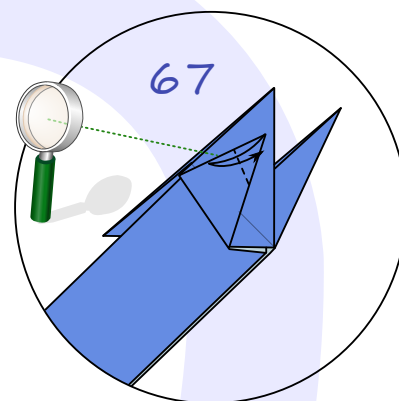
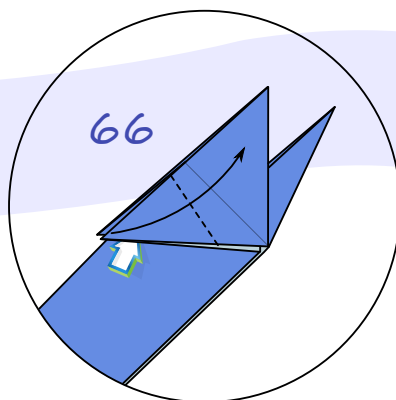
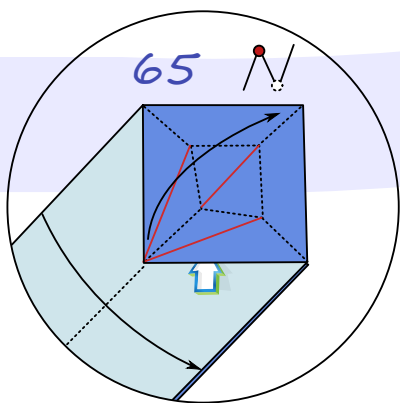




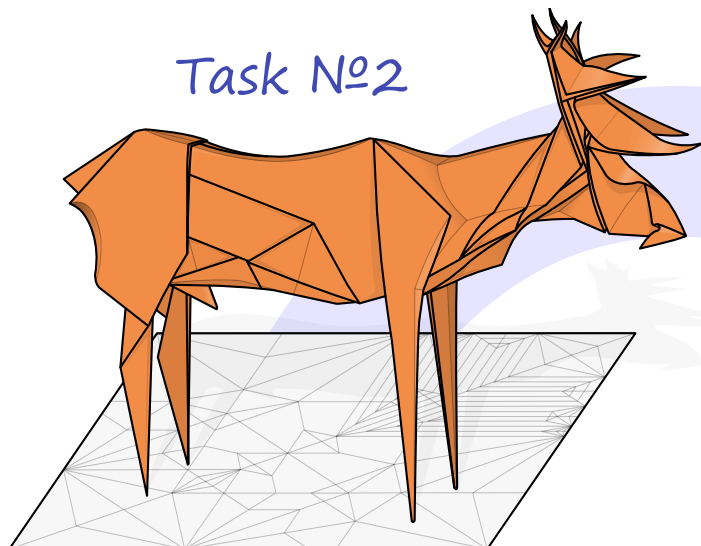








## Task №2



## Moose

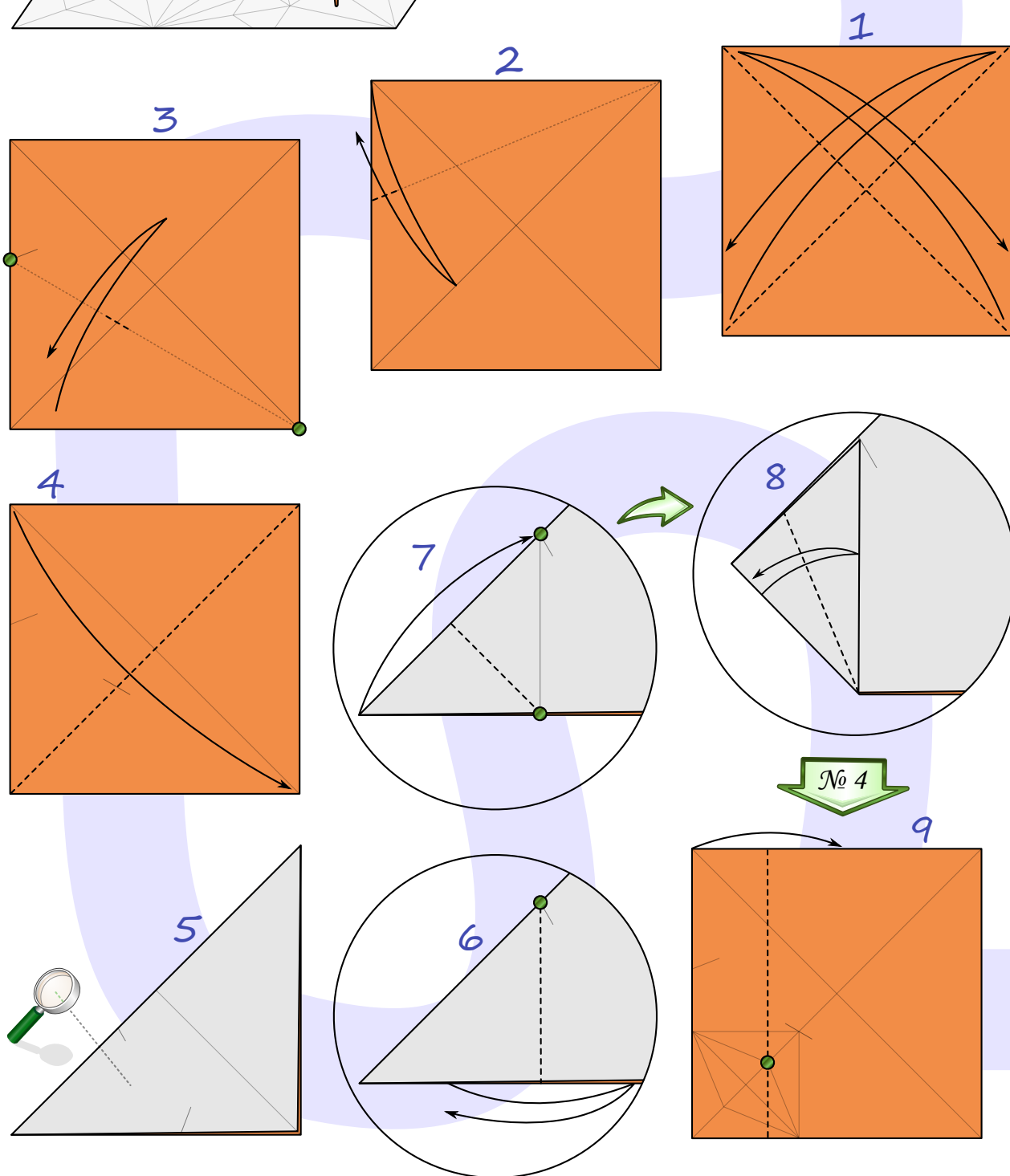
Andrey Ermakov (Russia)

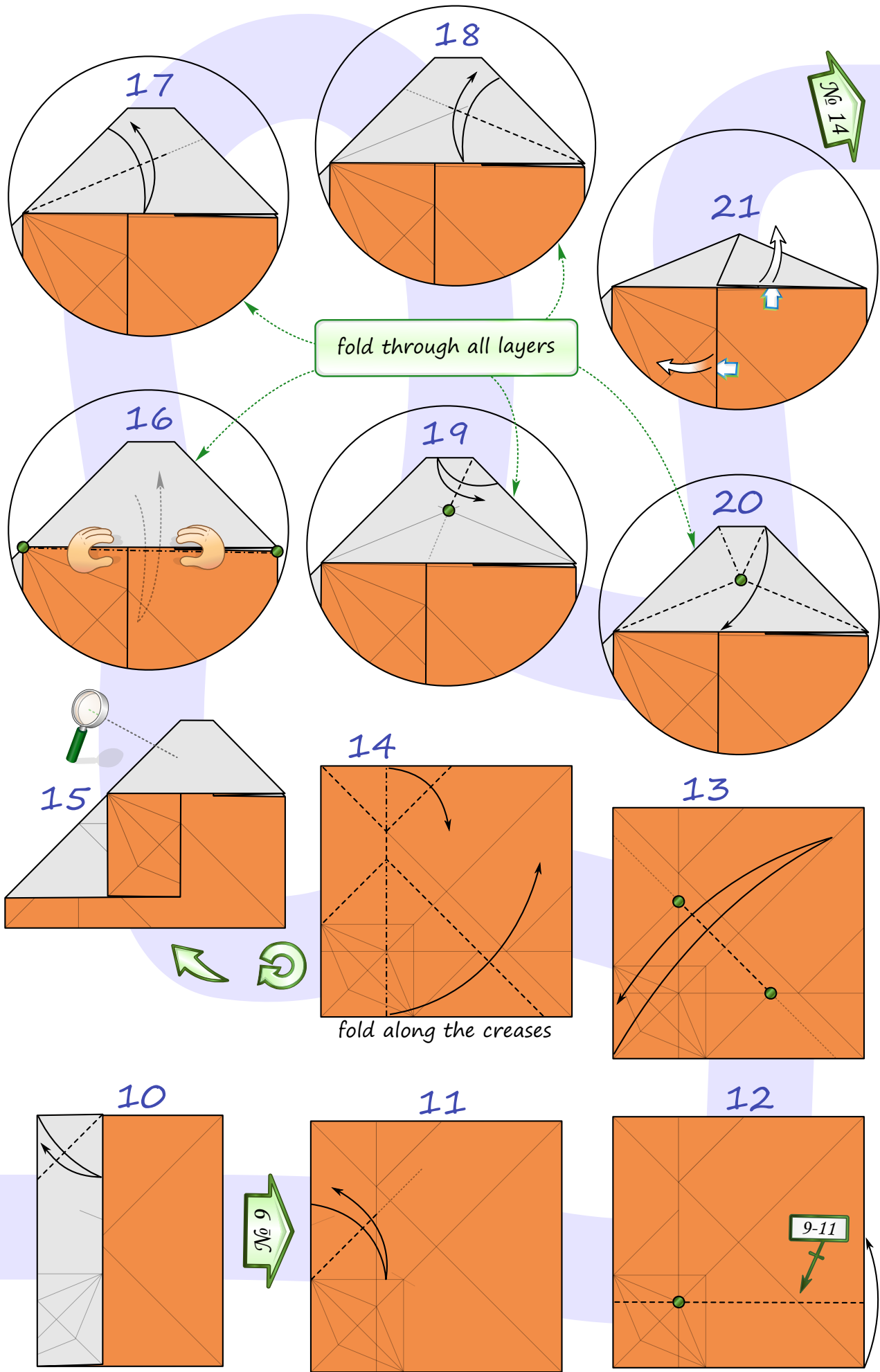
Difficulty: \*\*\*\*\*

Paper: 30-40 g/m<sup>2</sup>

Paper size: 35-35 cm

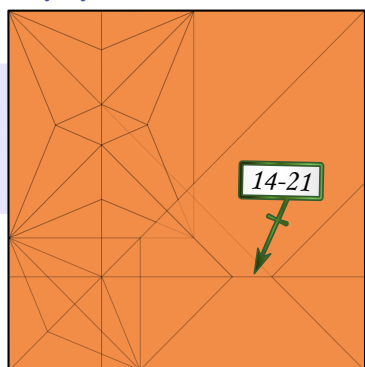
Max score: 7 points



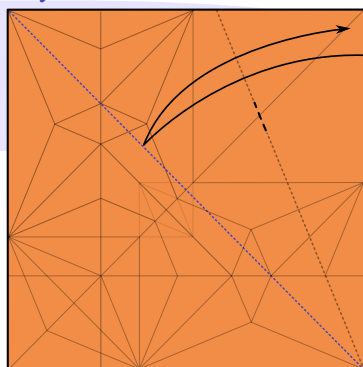




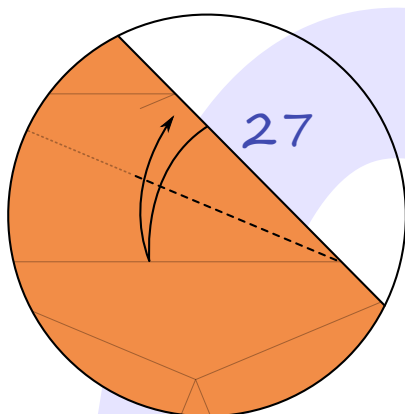
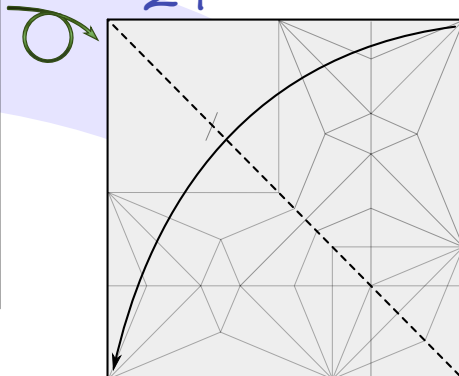
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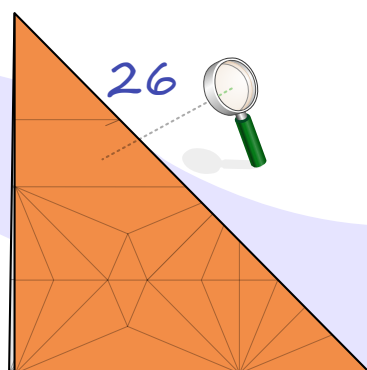
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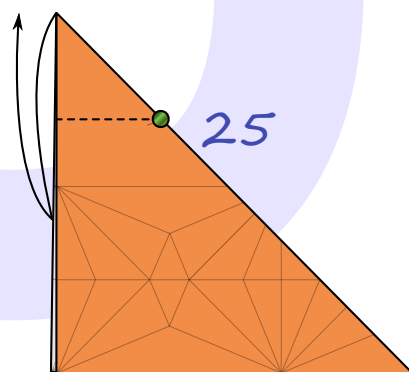
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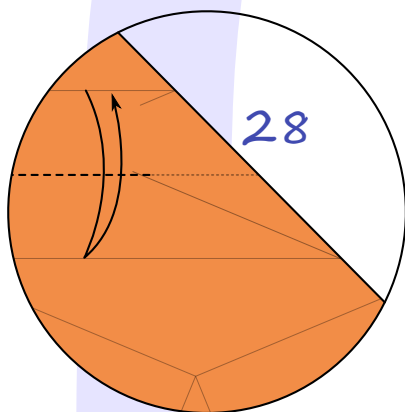
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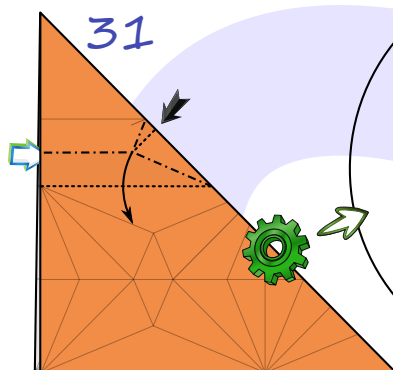
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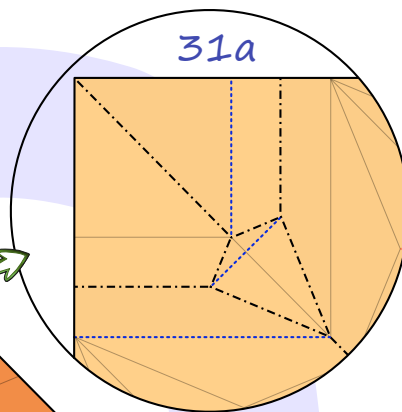
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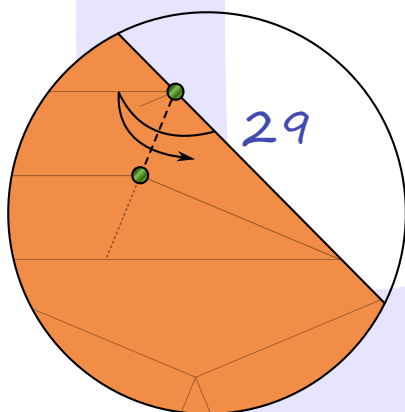
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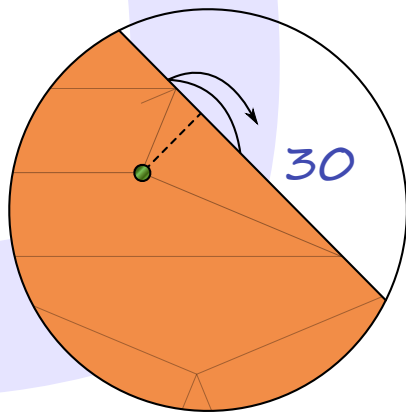
31



31a



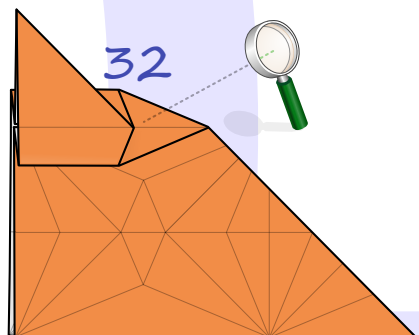
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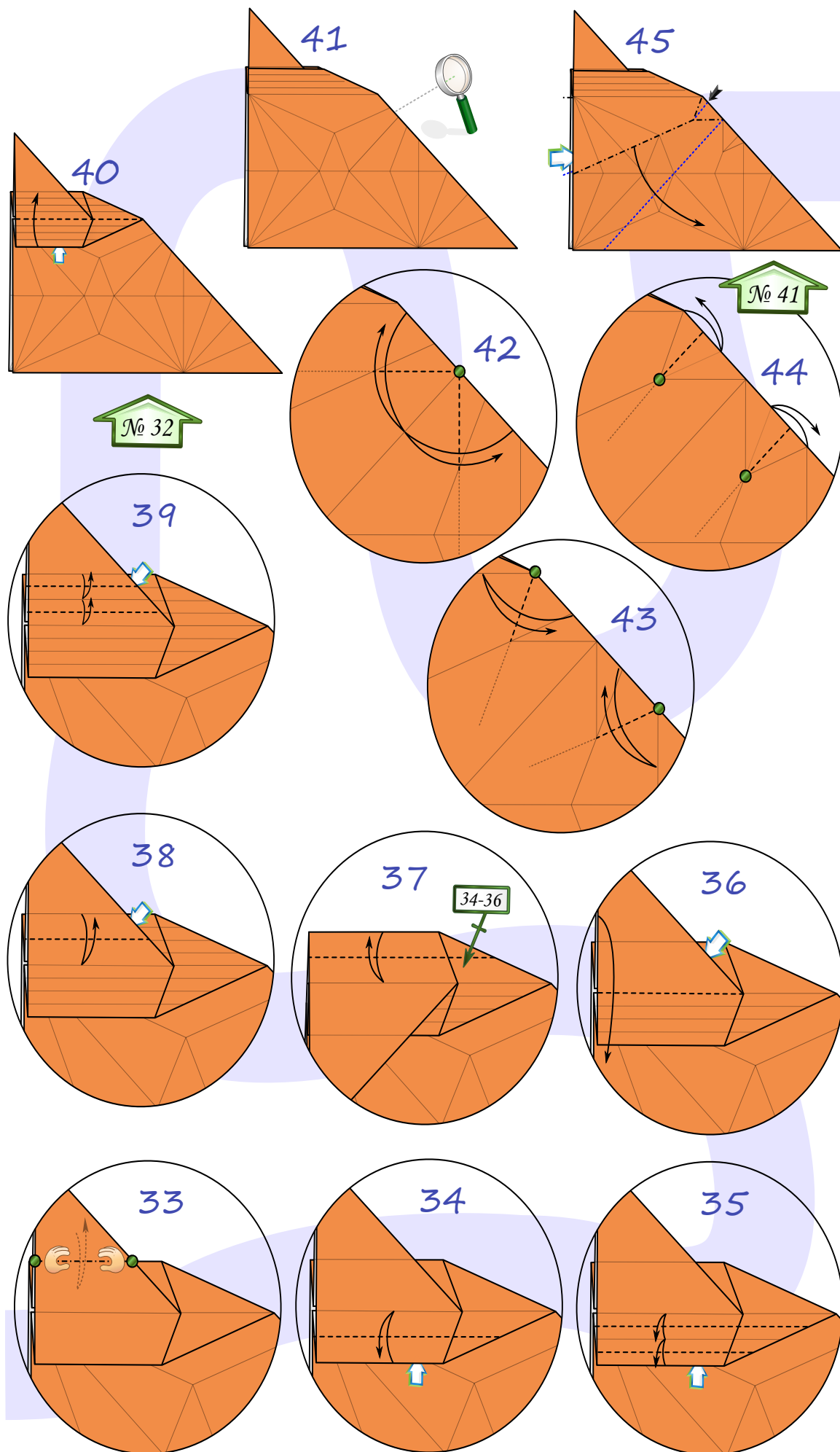


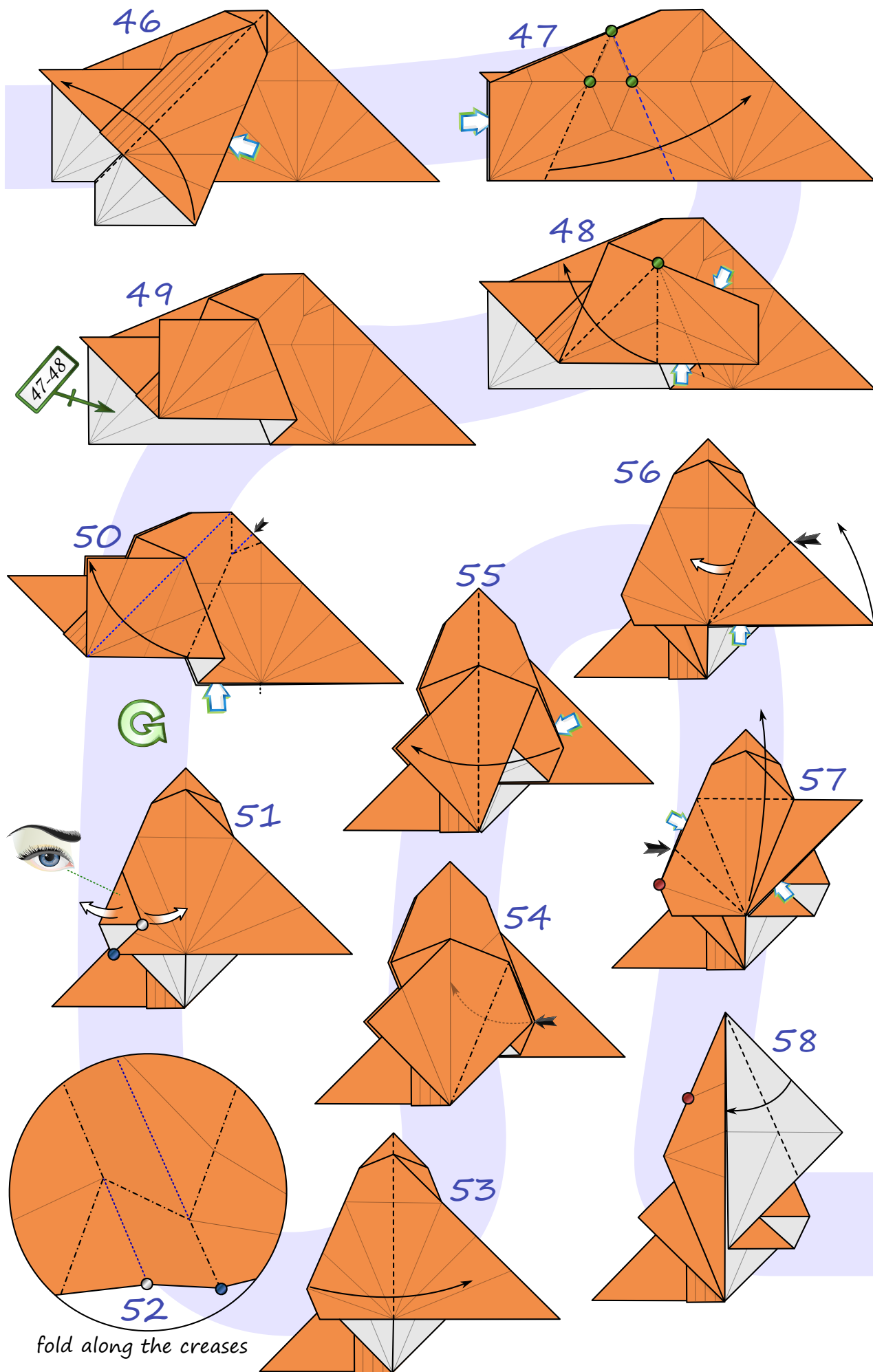
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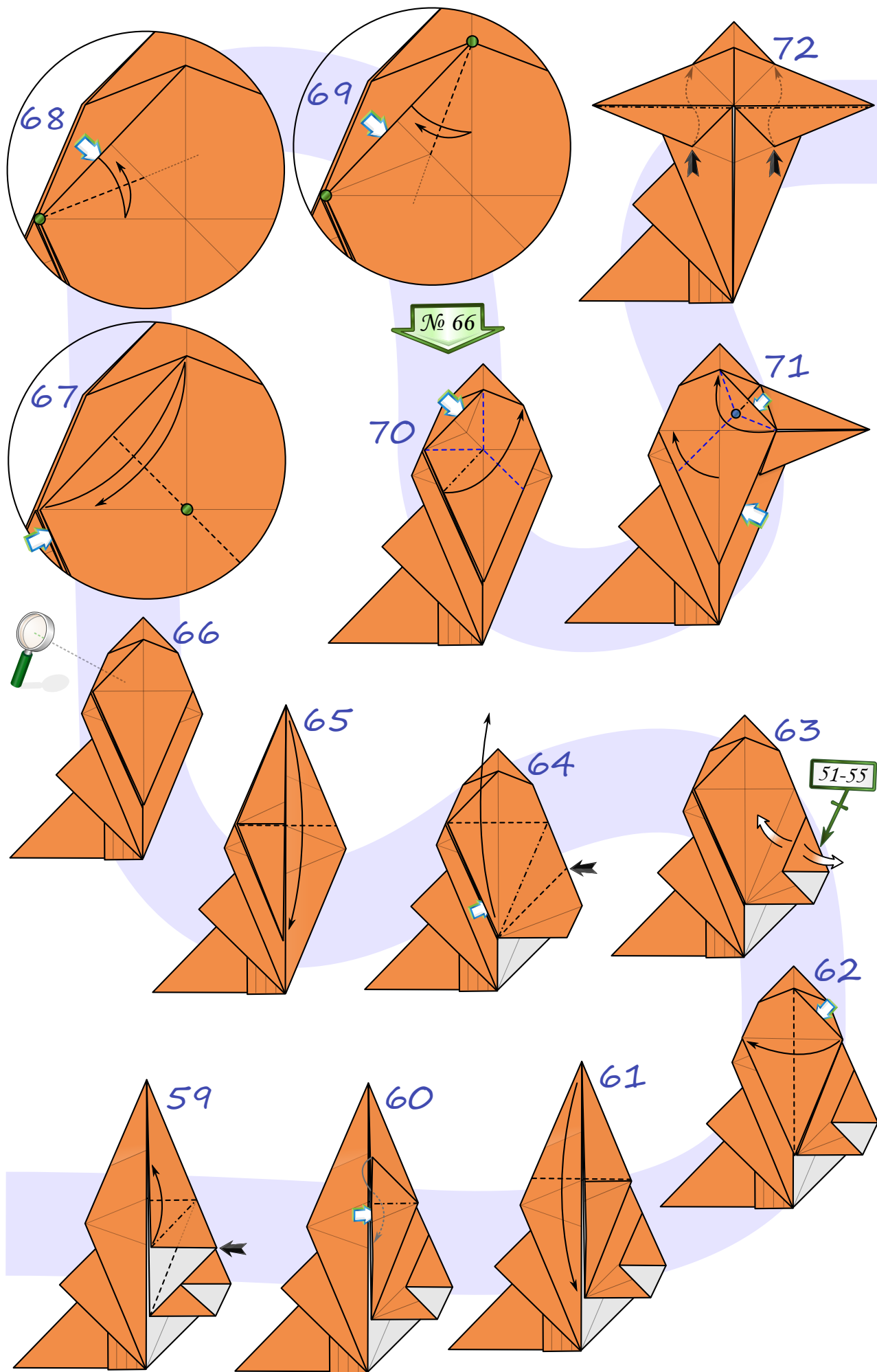


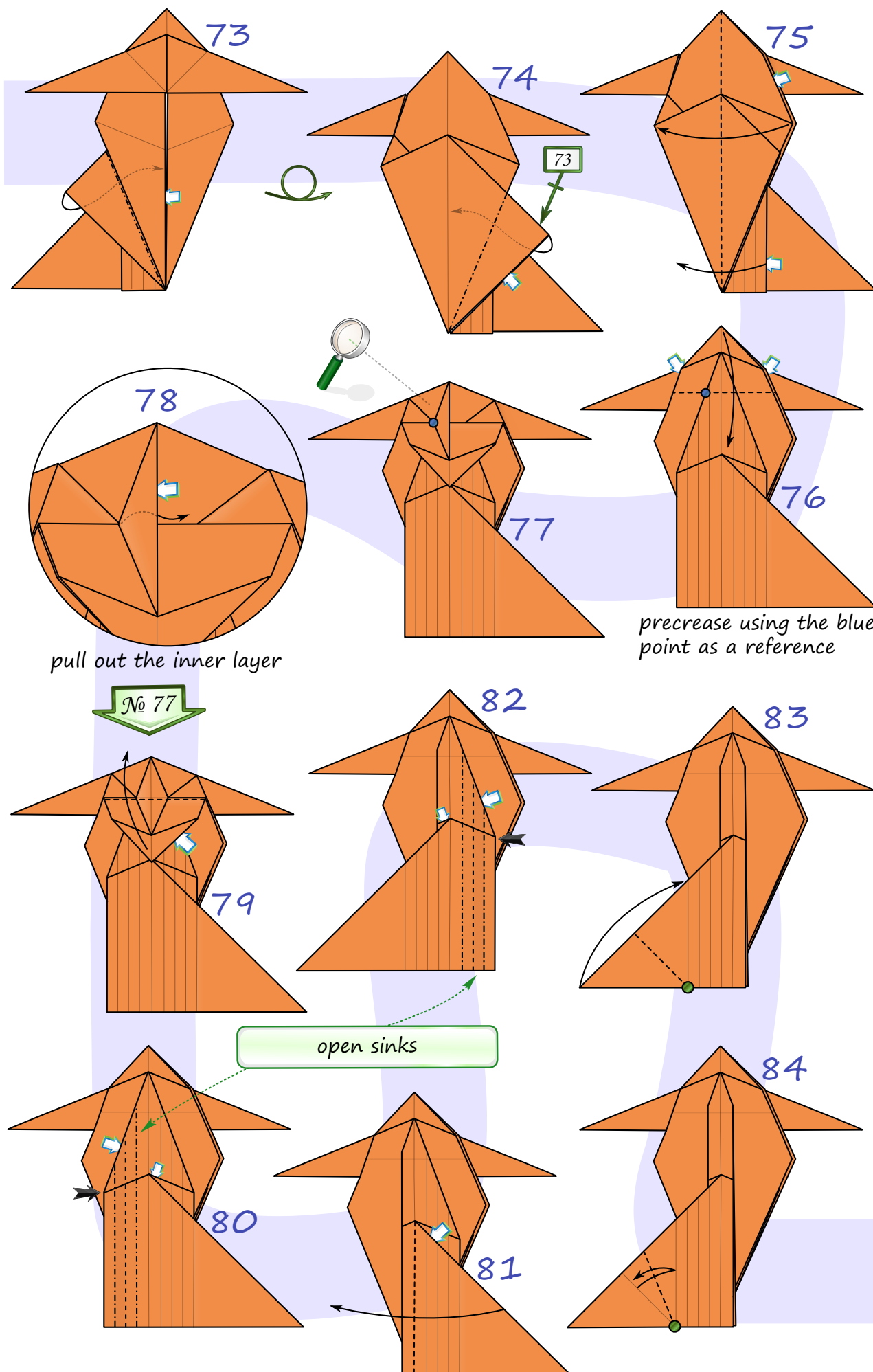
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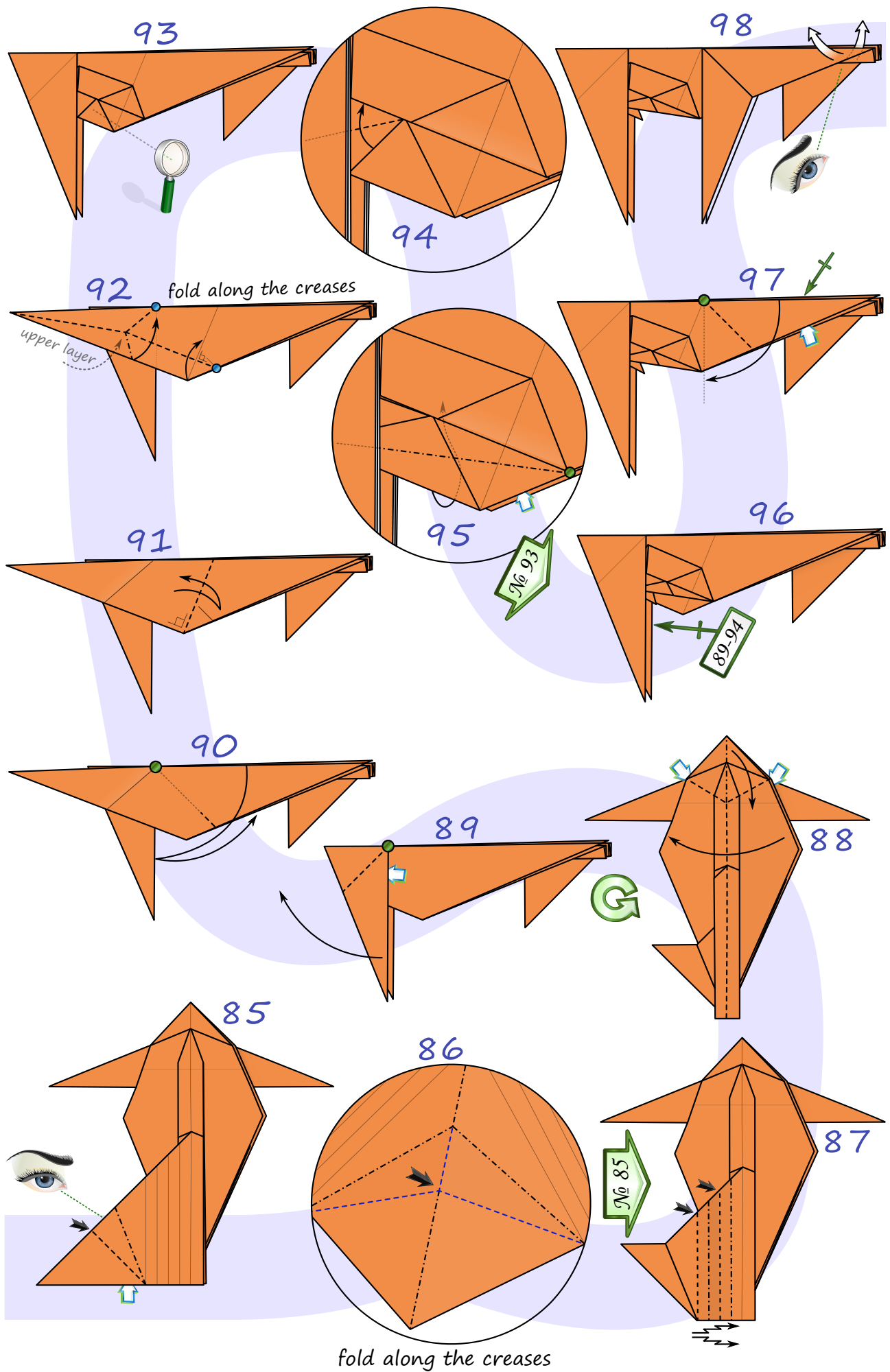


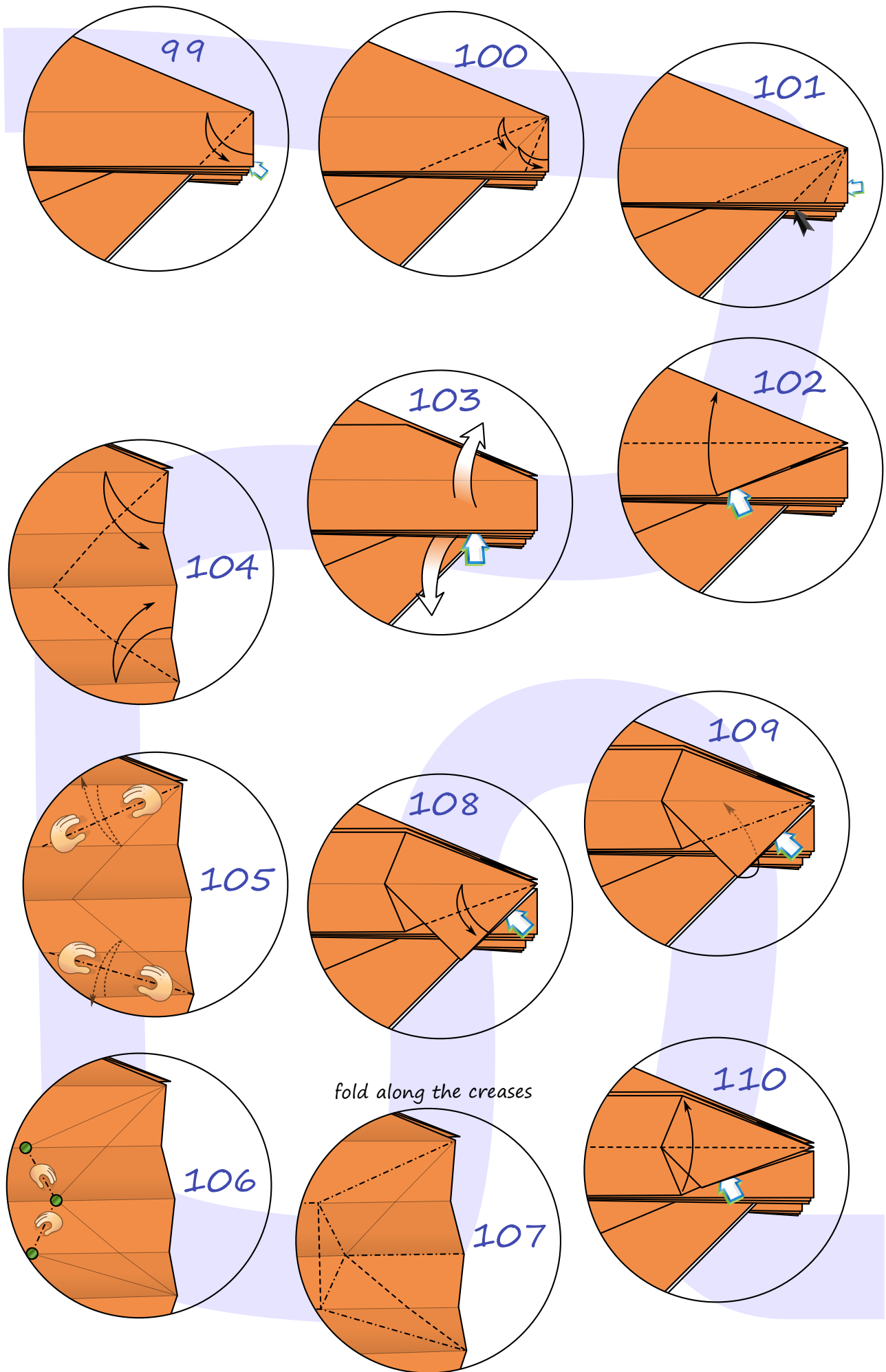


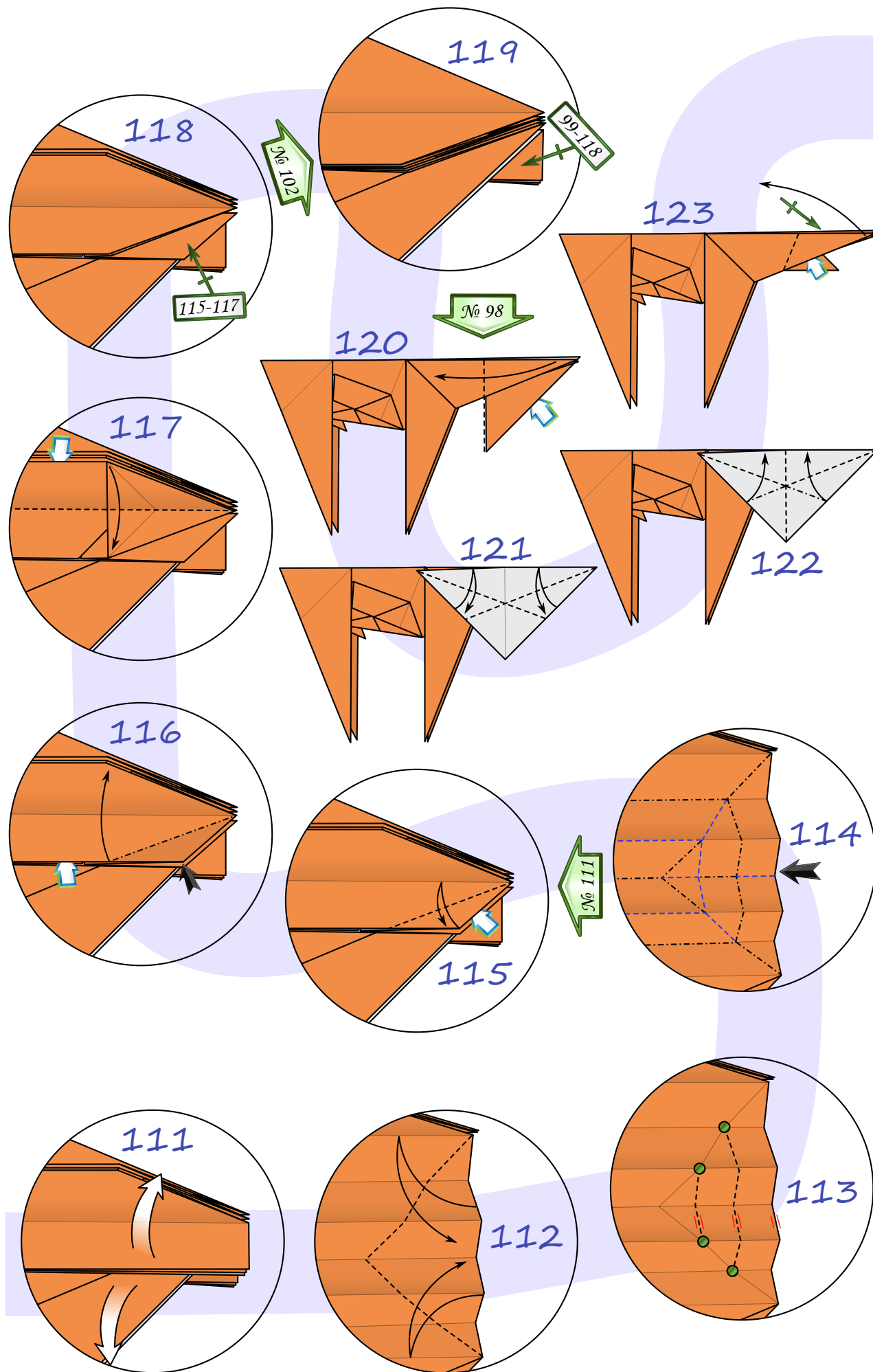




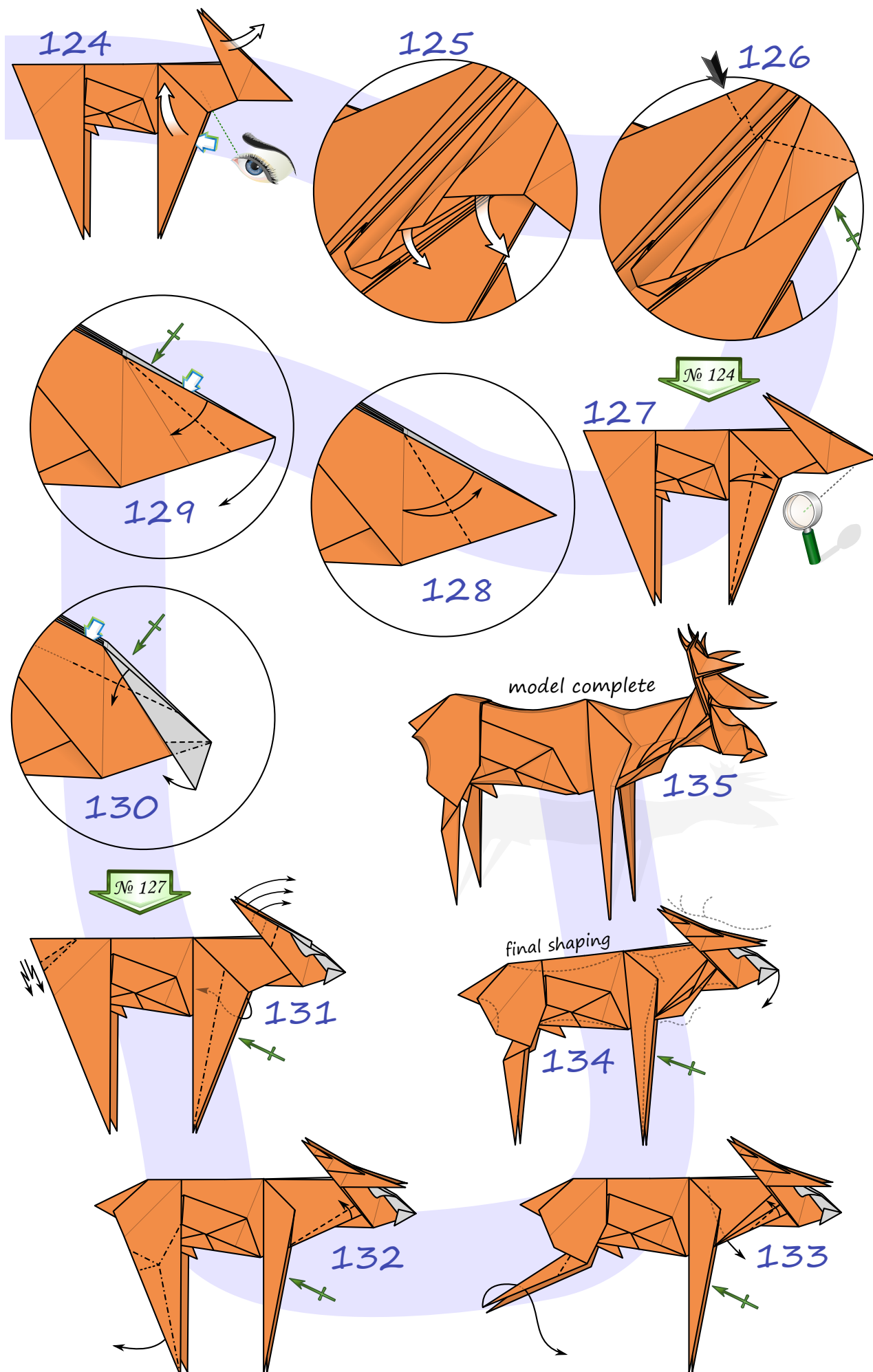














# Devil

Jun Zi You (China)

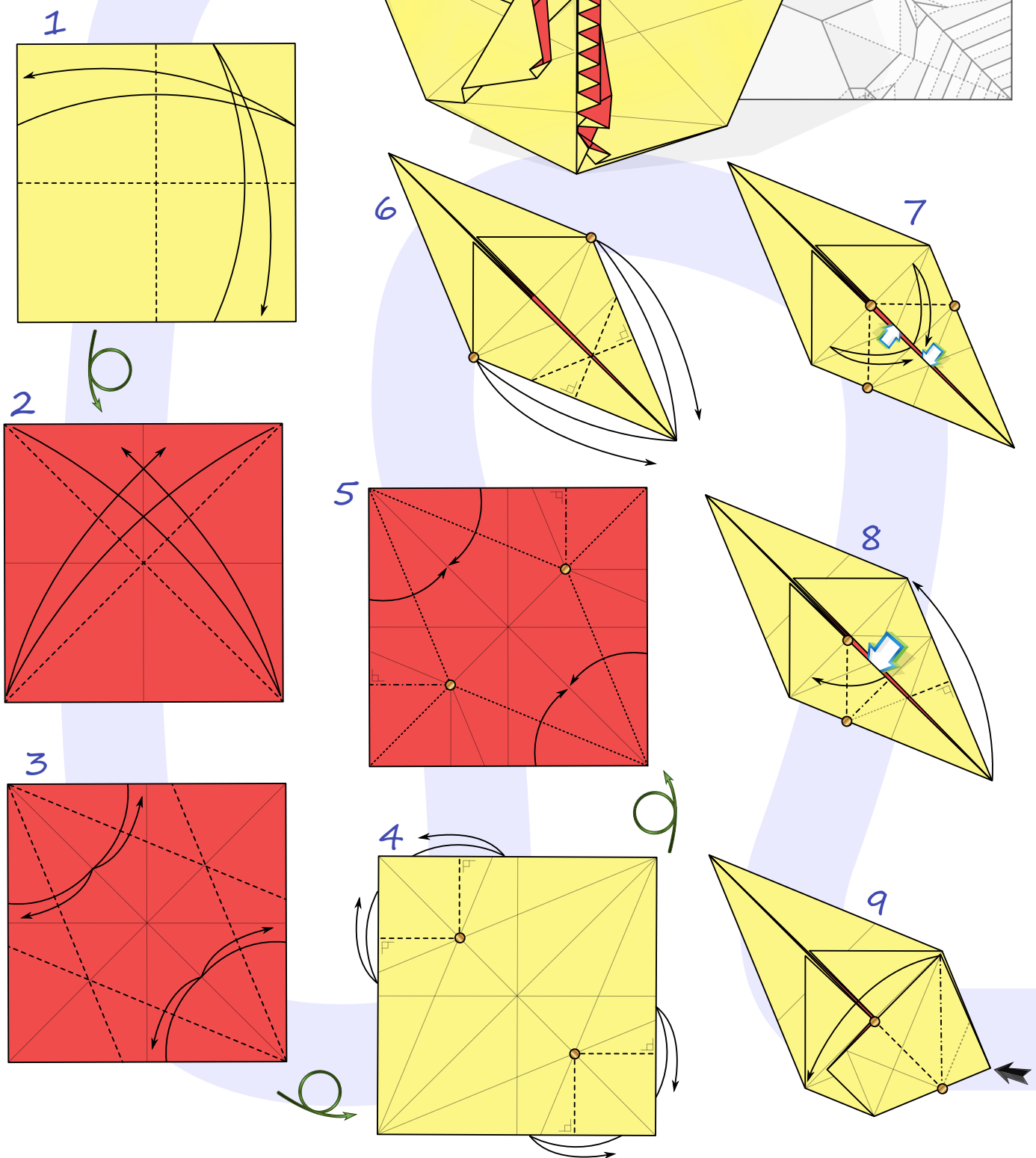
Difficulty: \*\*\*\*\*

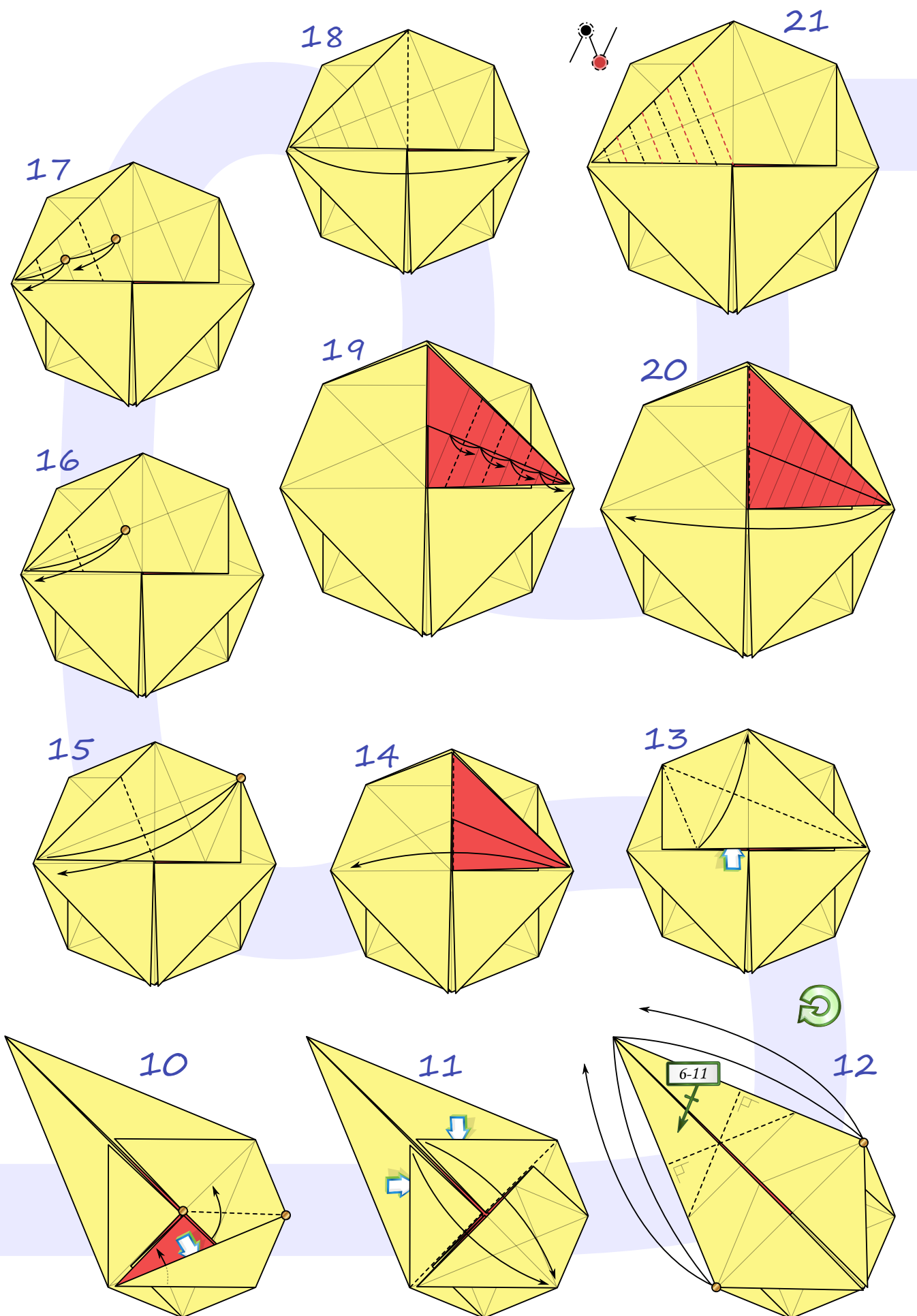
Paper: 30-40 g/m<sup>2</sup>

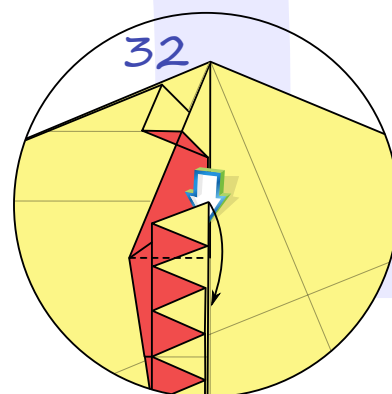
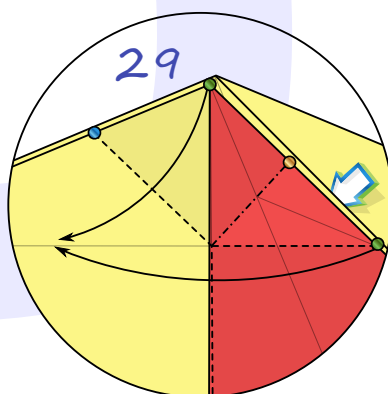
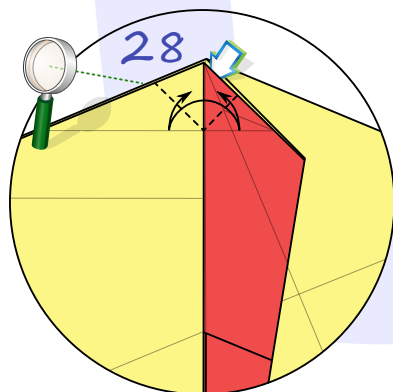
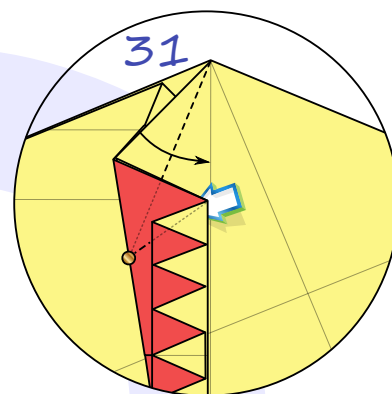
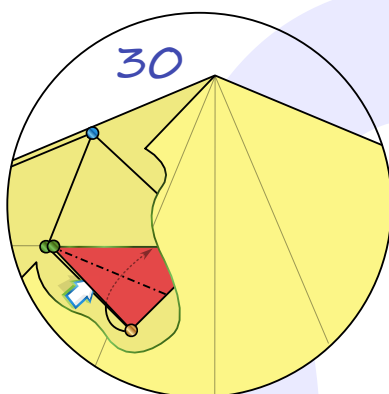
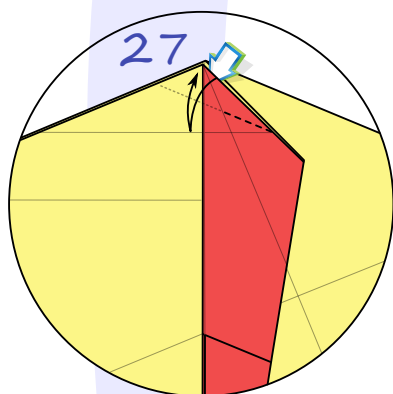
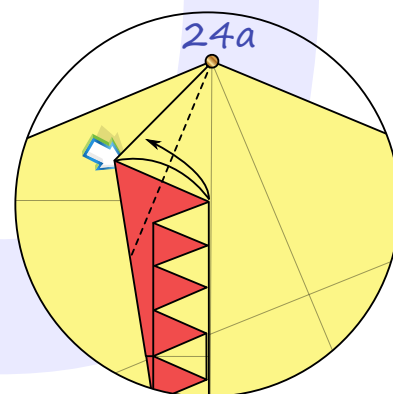
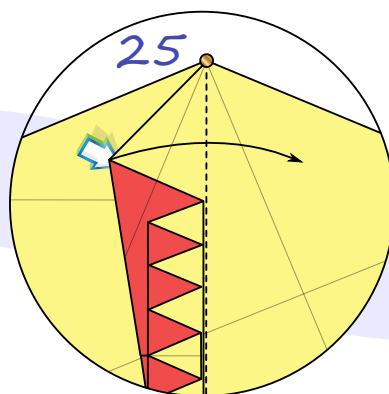
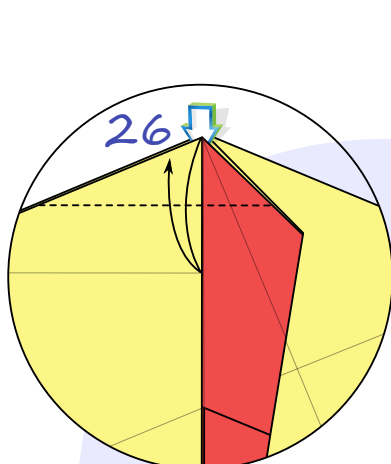
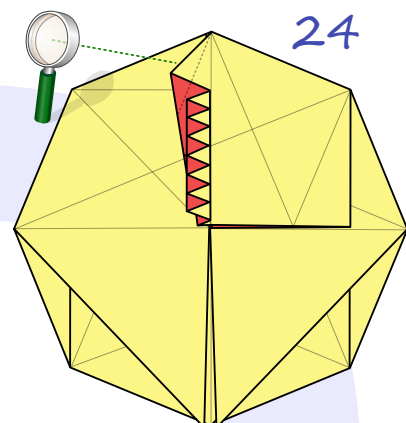
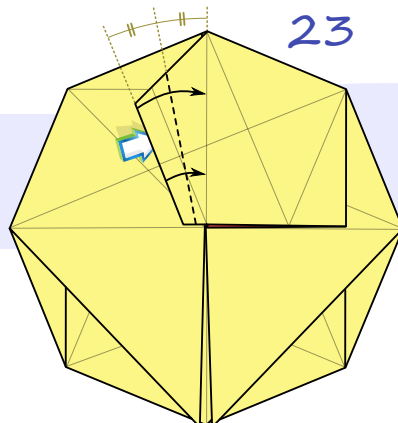
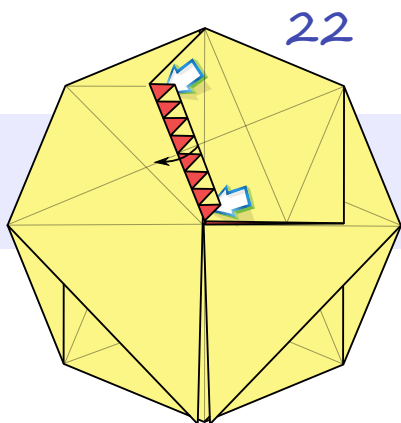
Paper size: 30-30 cm

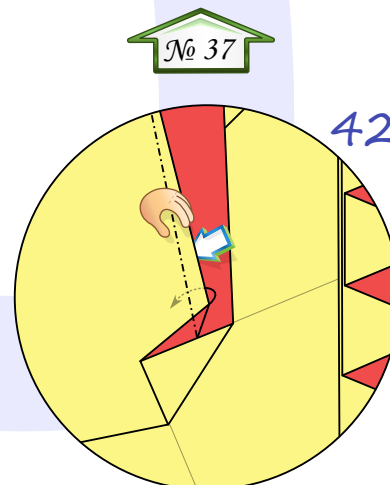
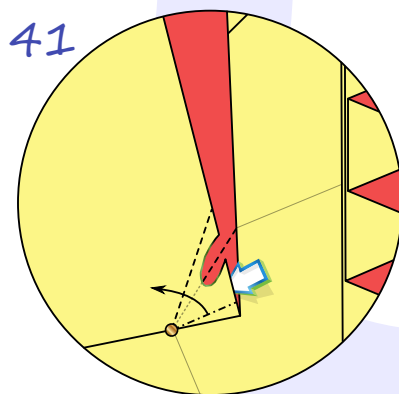
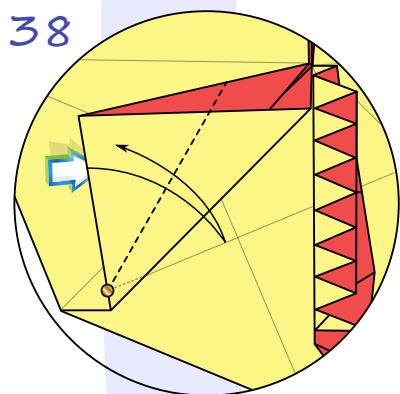
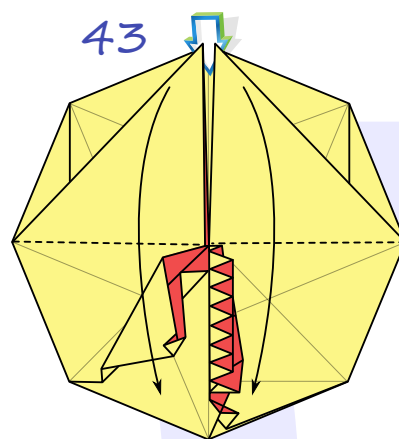
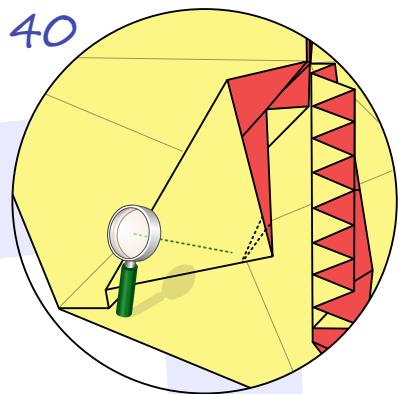
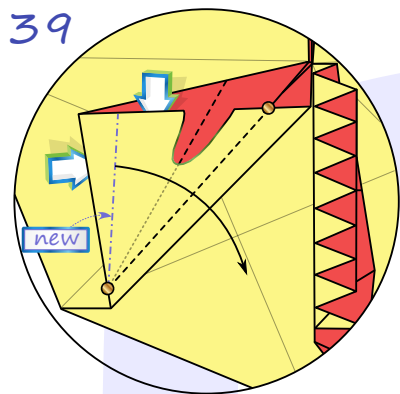
Max score: 8 points

## Task №3

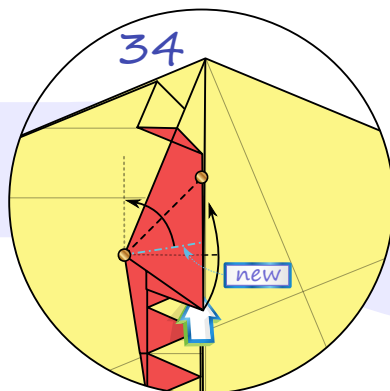
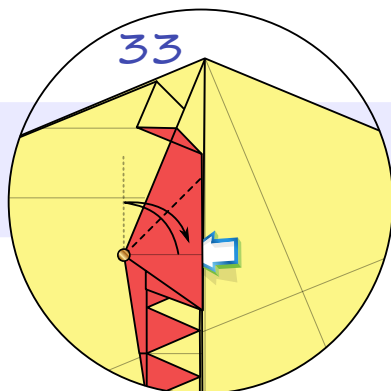
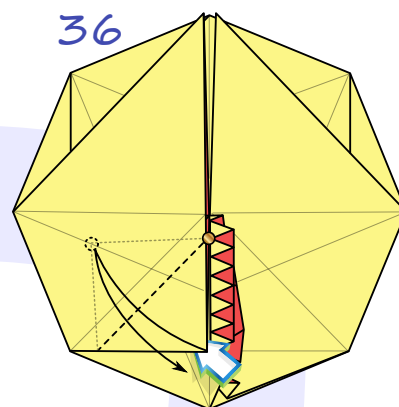
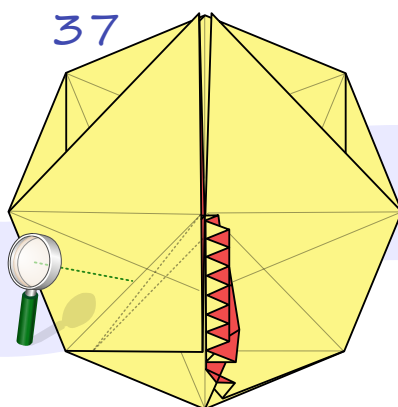
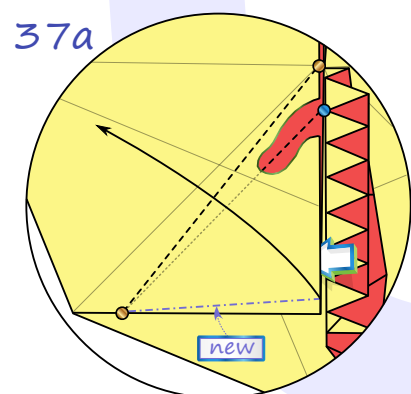




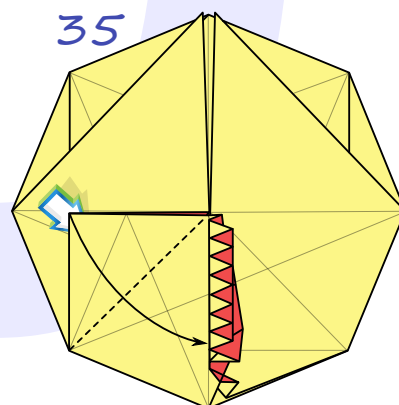




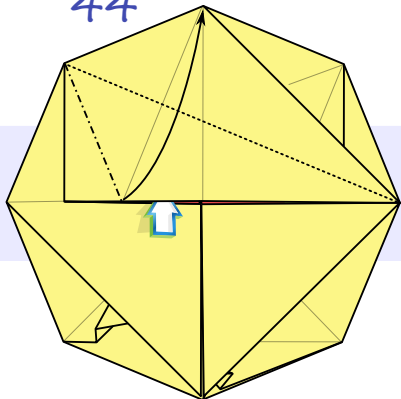
№ 37



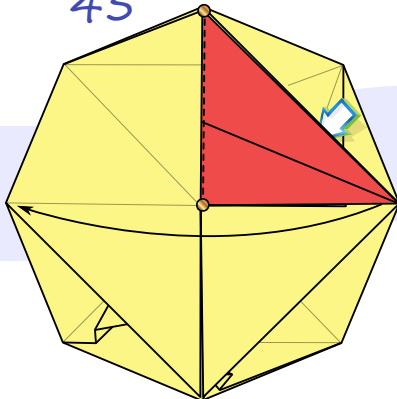
№ 24



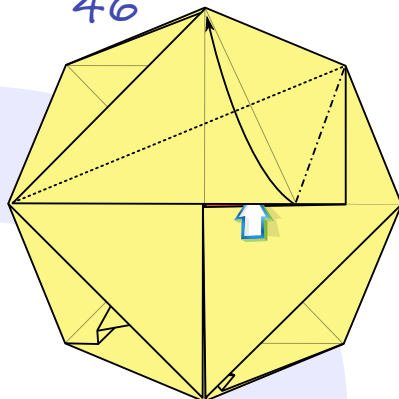
44



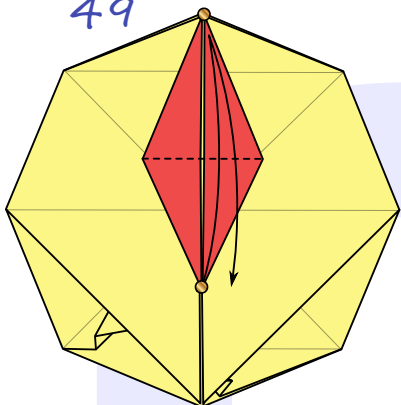
45



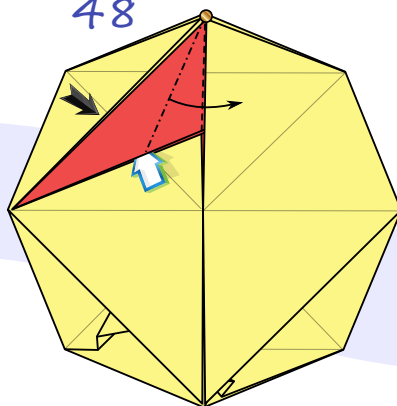
46



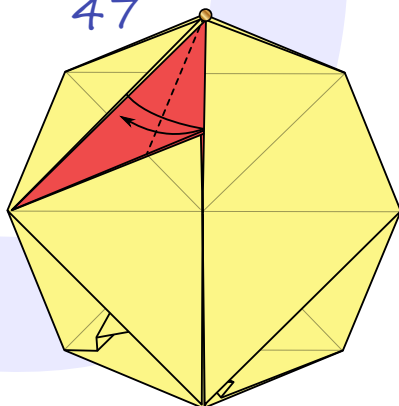
49



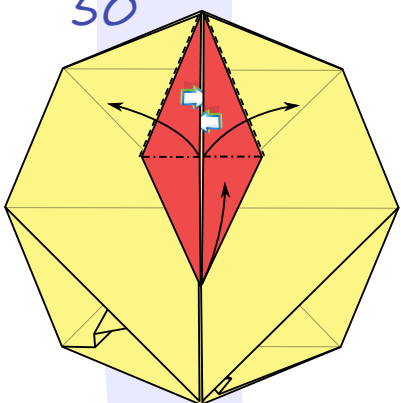
48



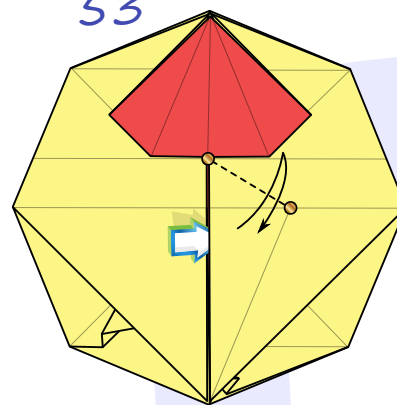
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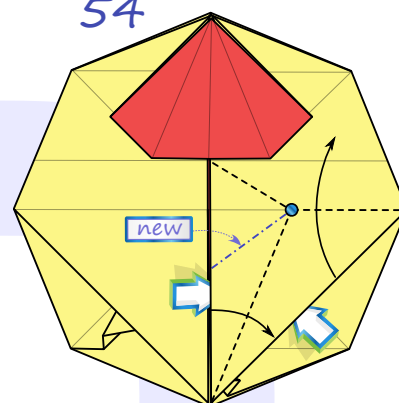
50



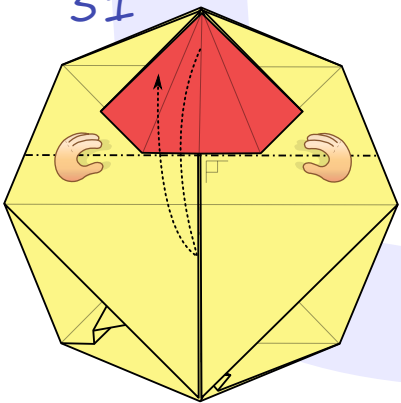
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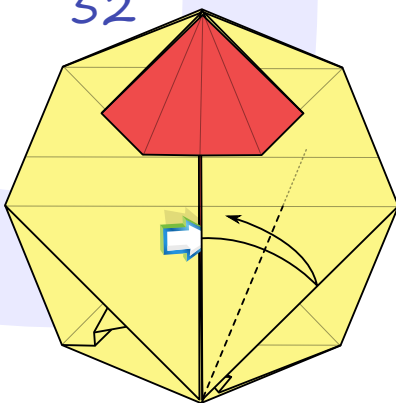
54



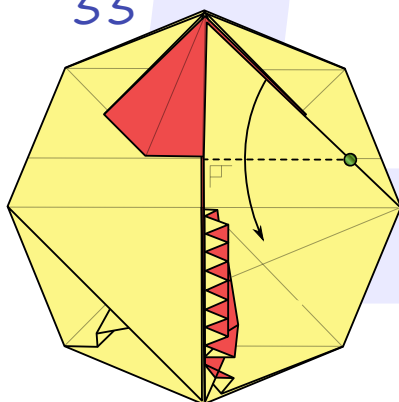
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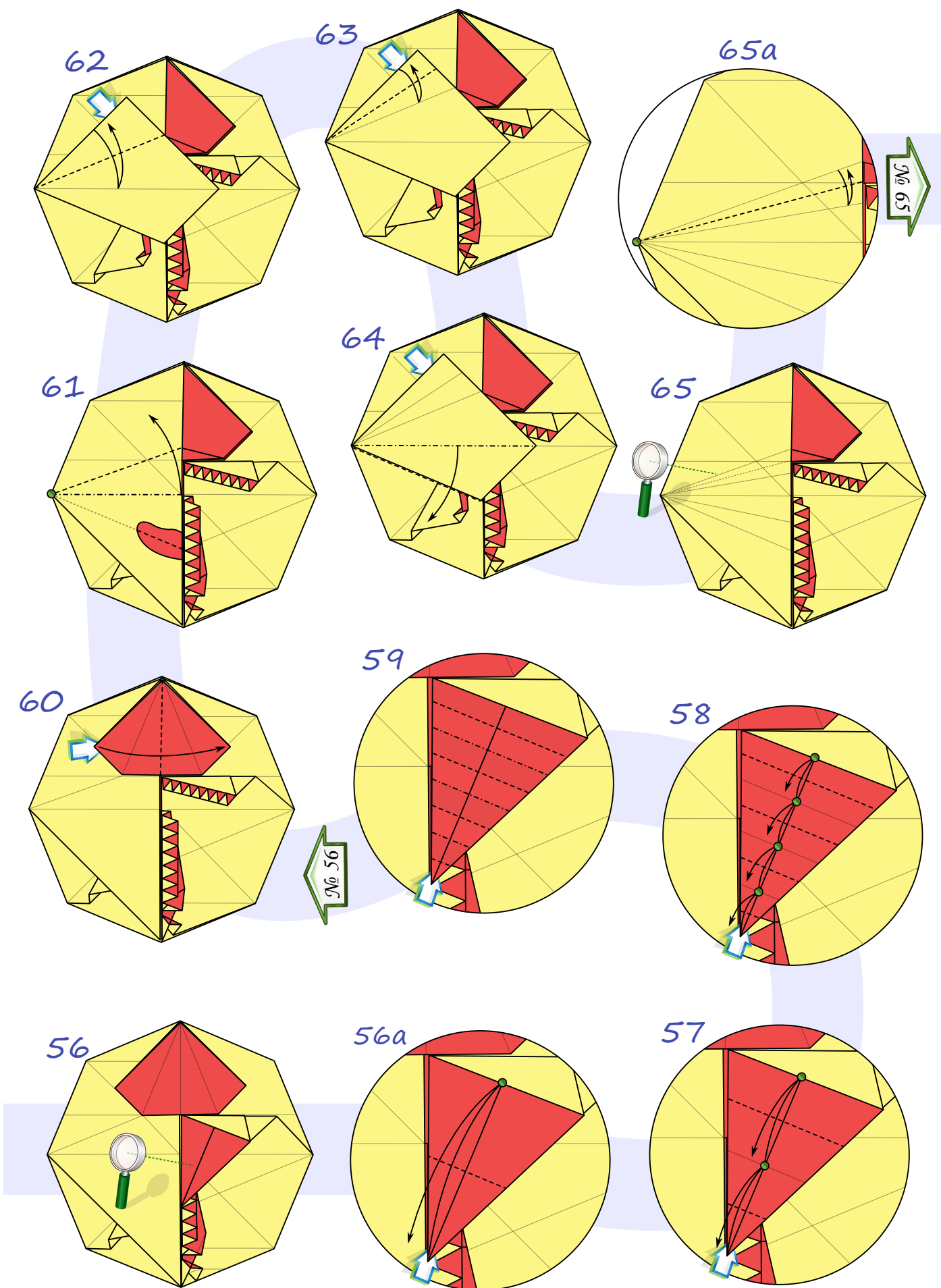


52

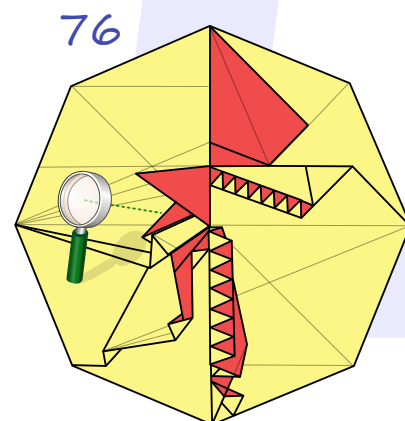
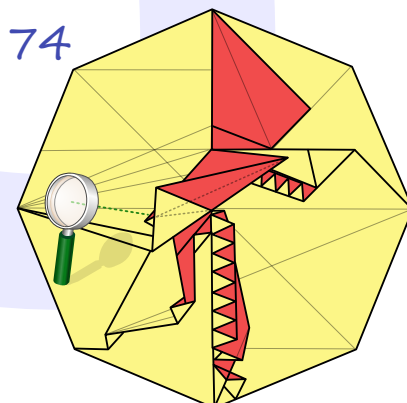
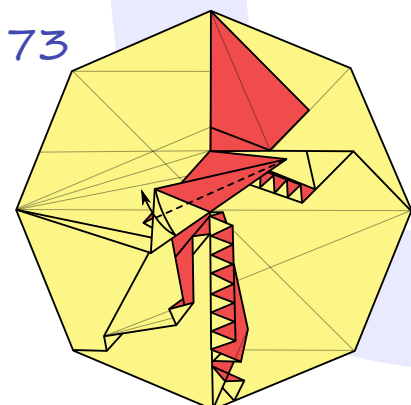
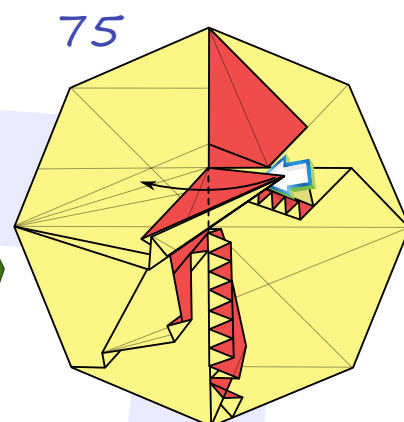
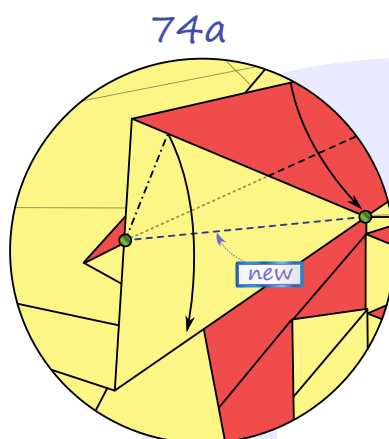
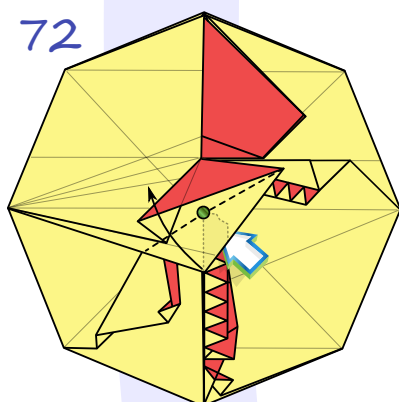
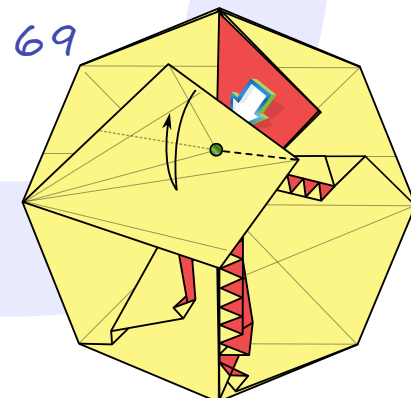
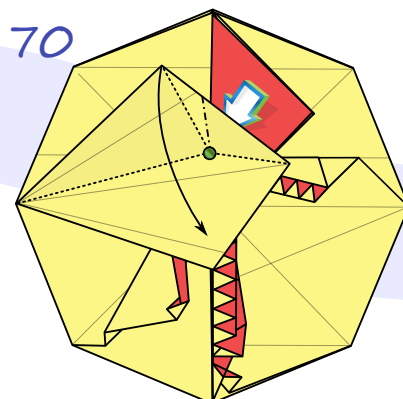
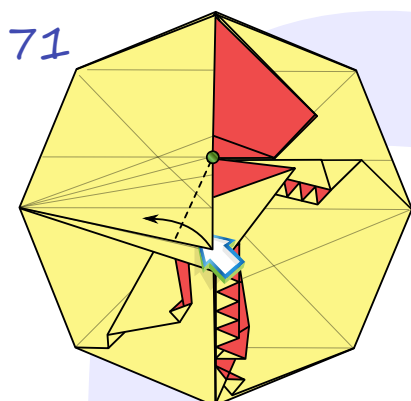
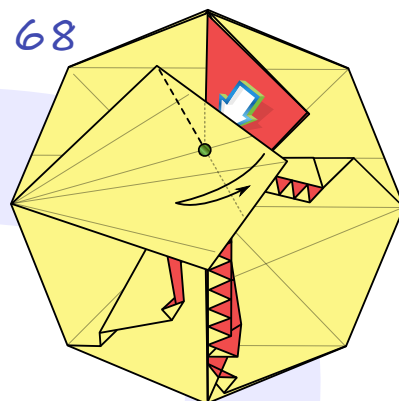
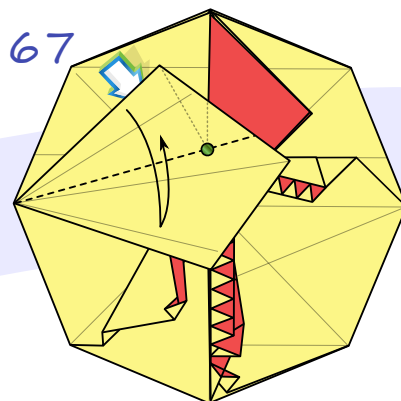
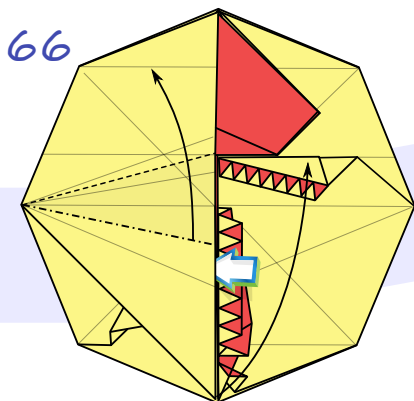


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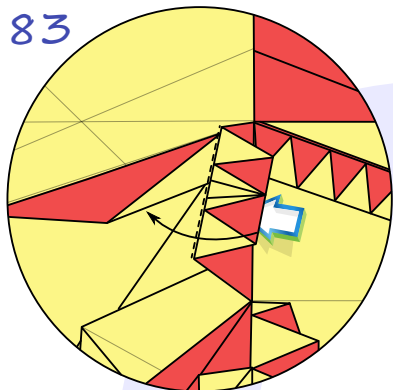




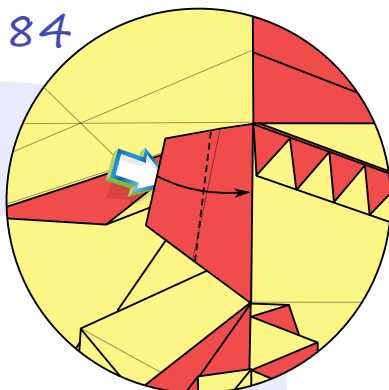




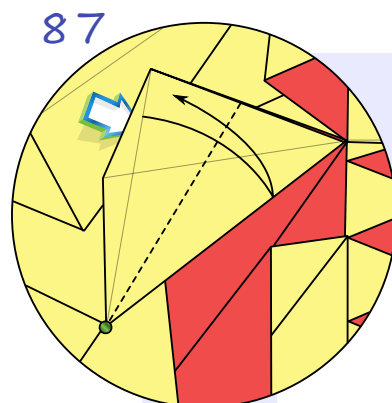
83



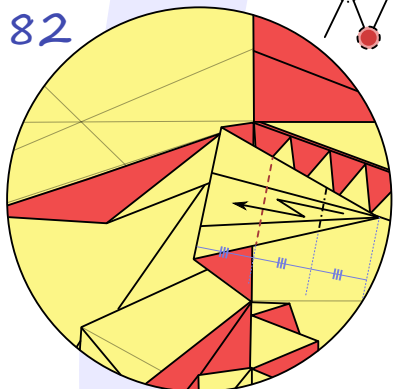
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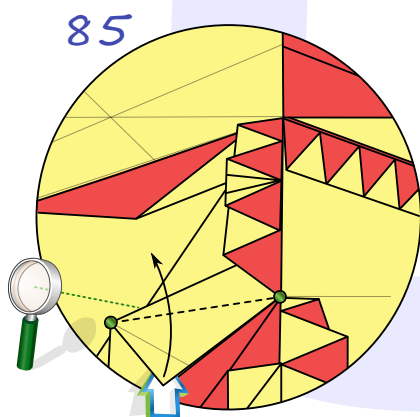
87



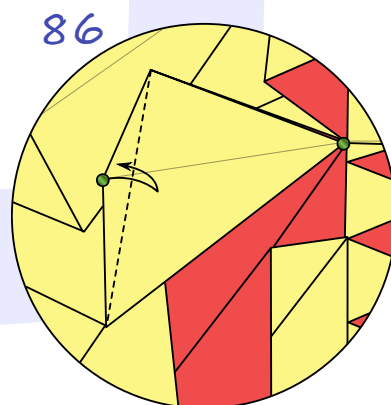
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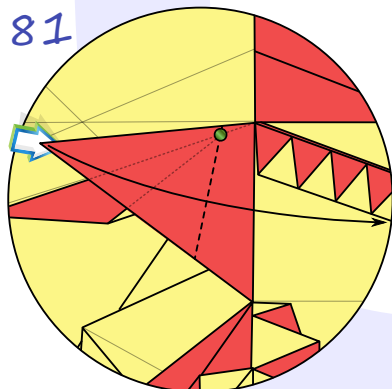
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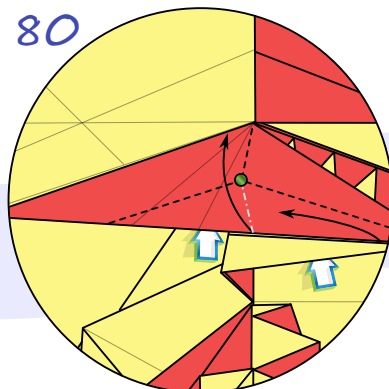
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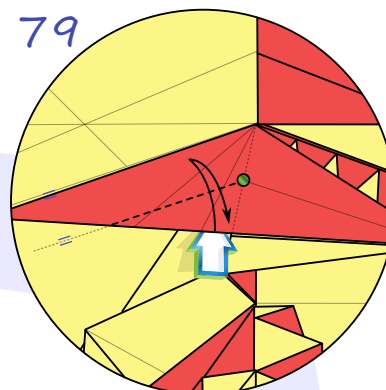
81



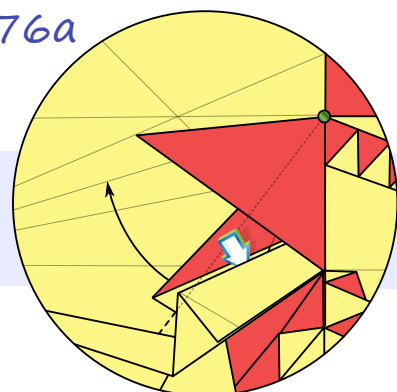
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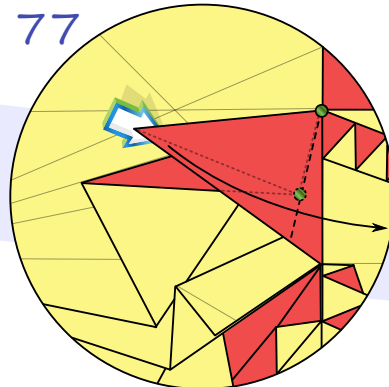
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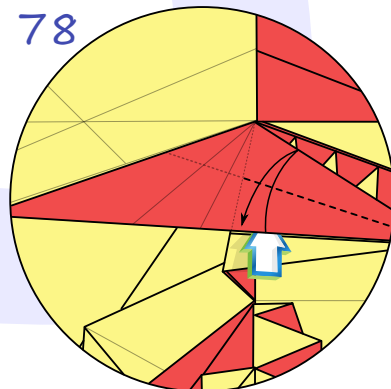
76a



77

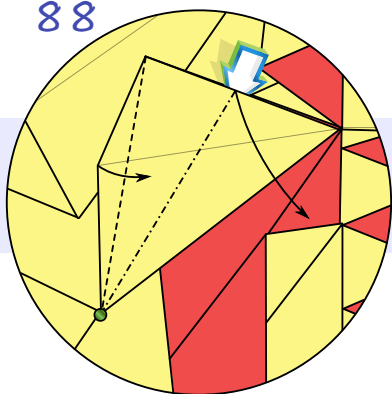


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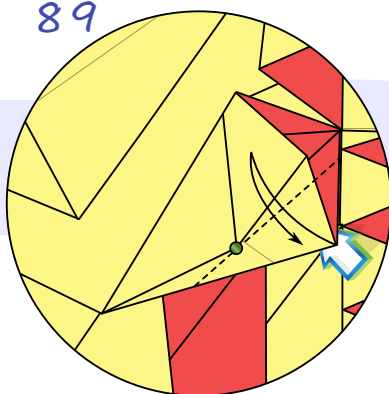




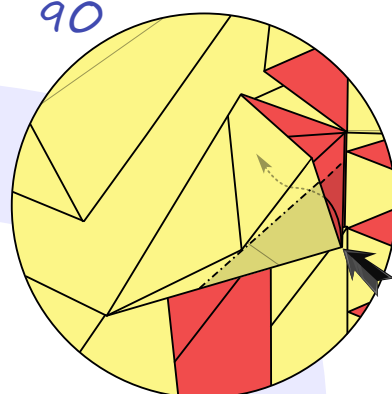
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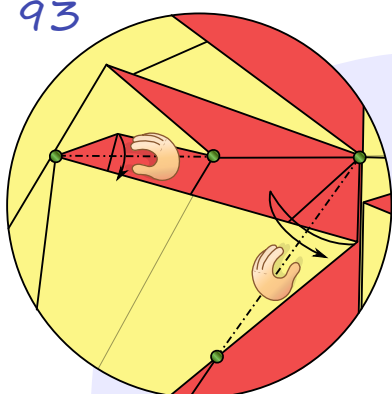
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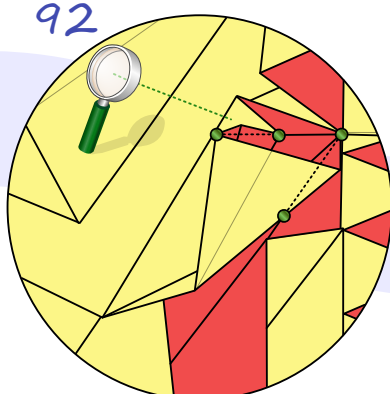
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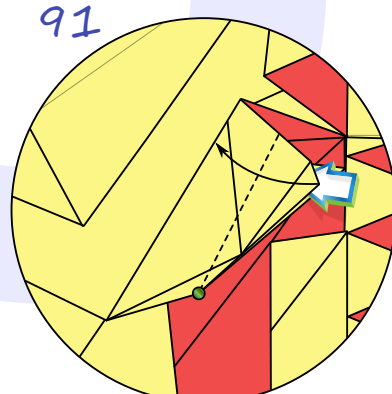
93



92

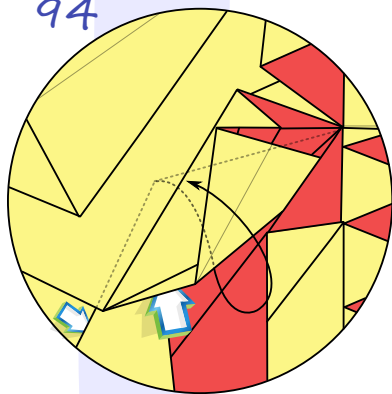


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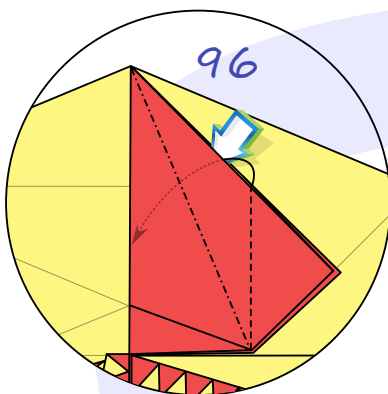


№ 92

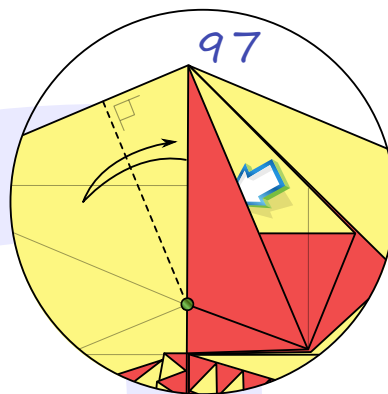
94



96

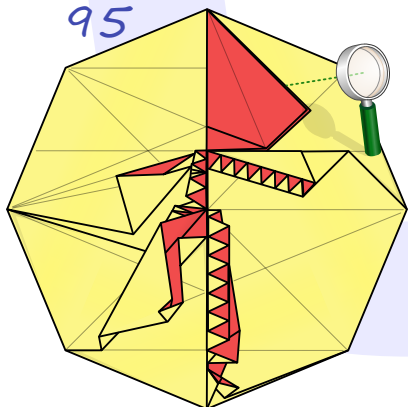


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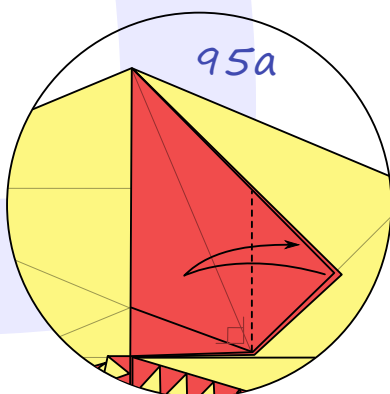


№ 76

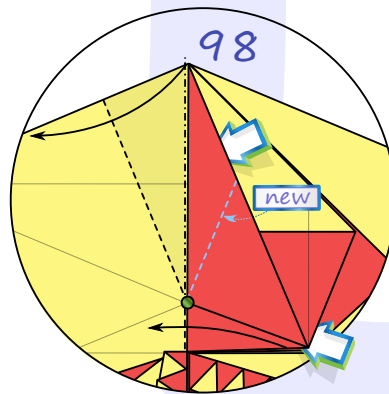
95



95a

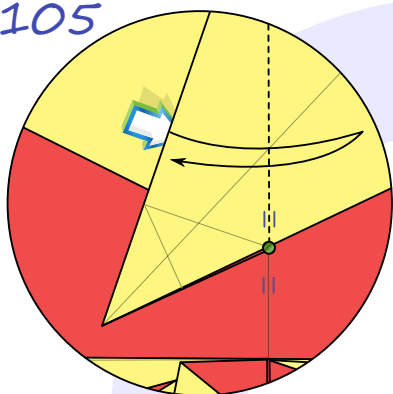


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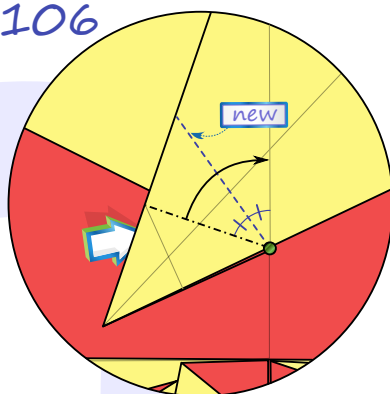


№ 95

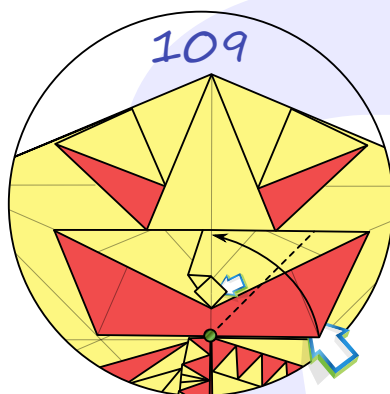
105



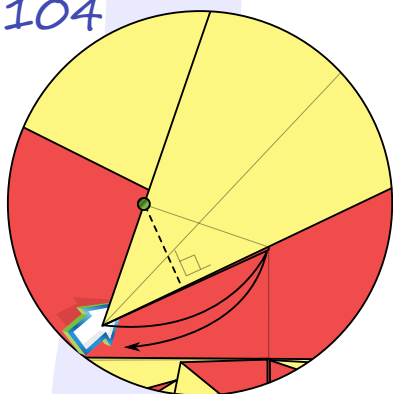
106



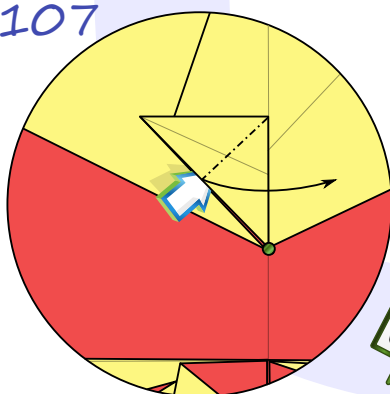
109



104

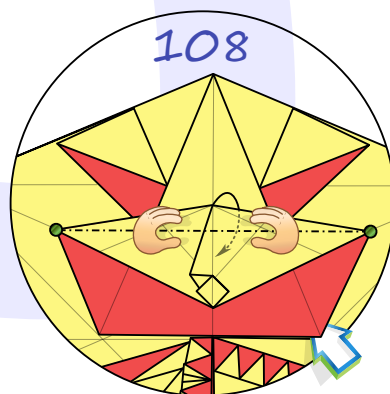


107

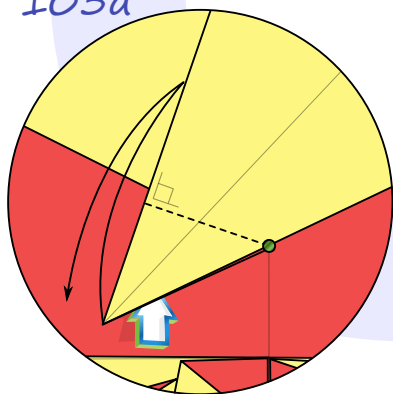


No 103

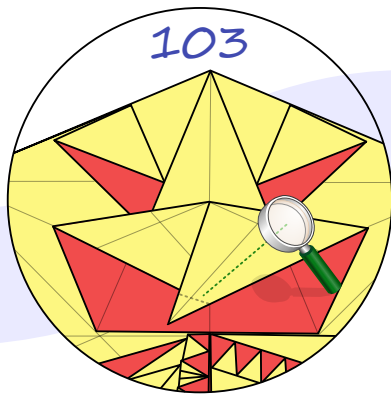
108



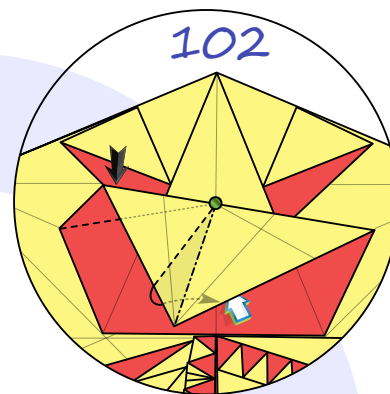
103a



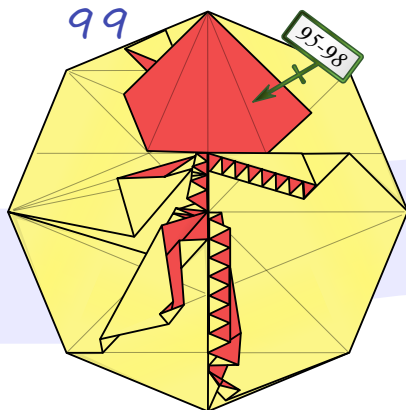
103



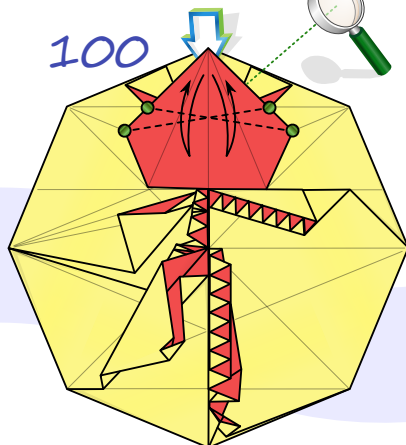
102



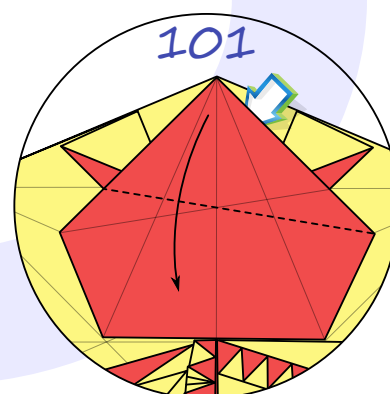
99

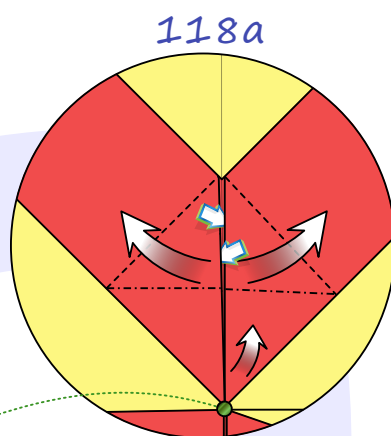
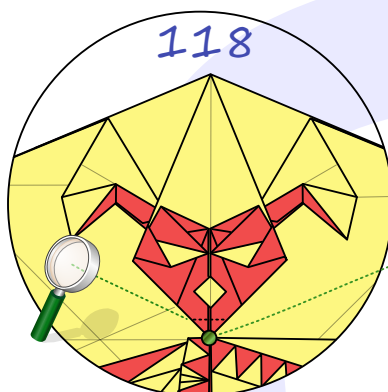
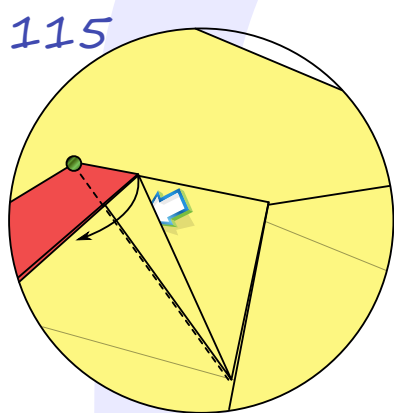
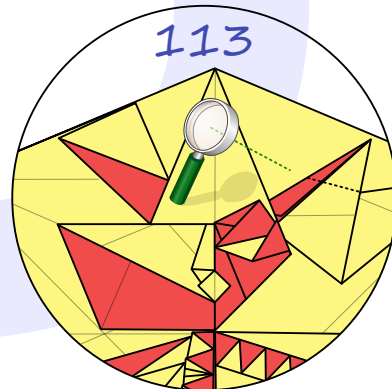
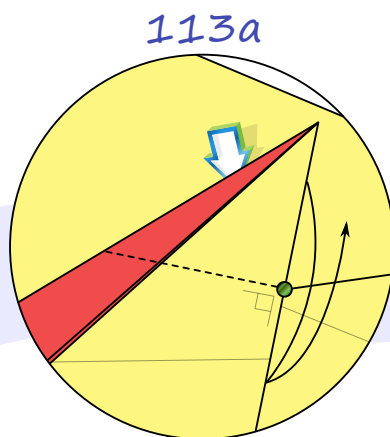
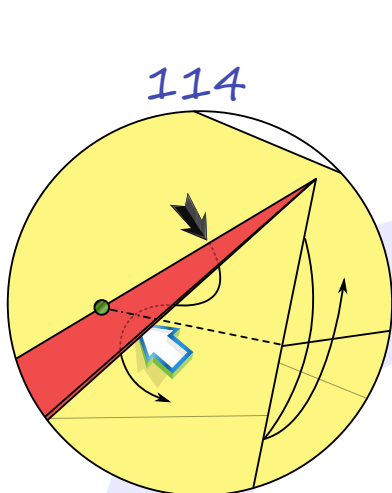
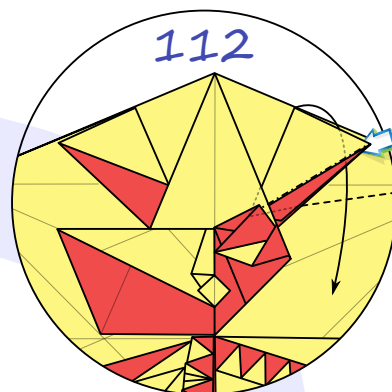
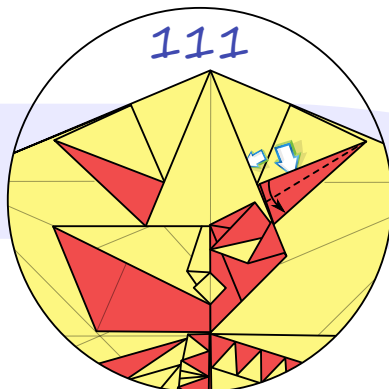
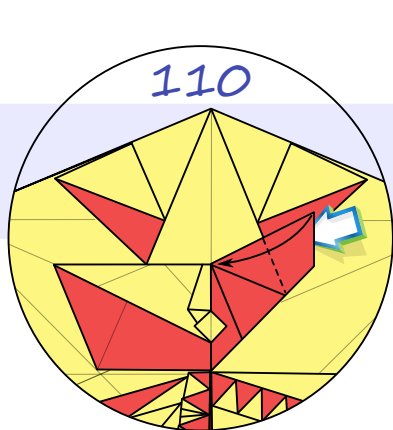


100



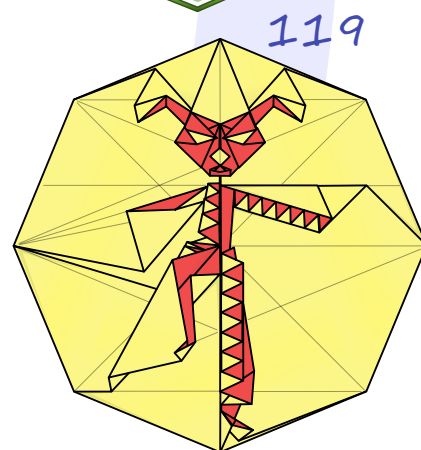
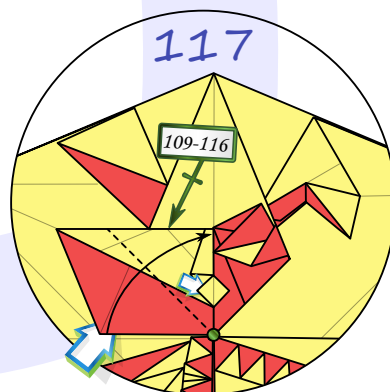
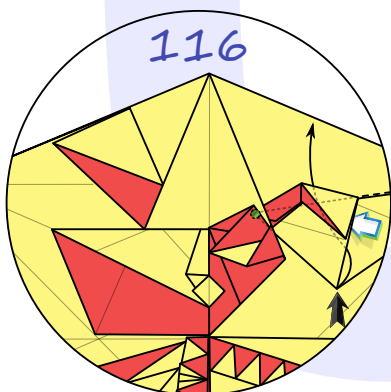
101





№ 113

№ 100



model complete

## Task №4

# Squid

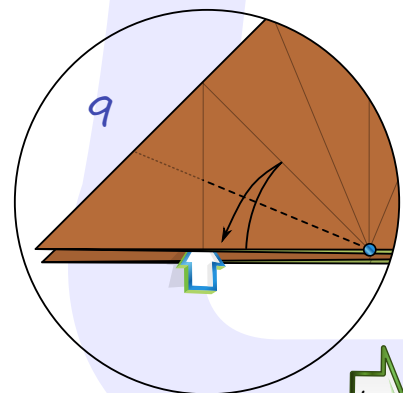
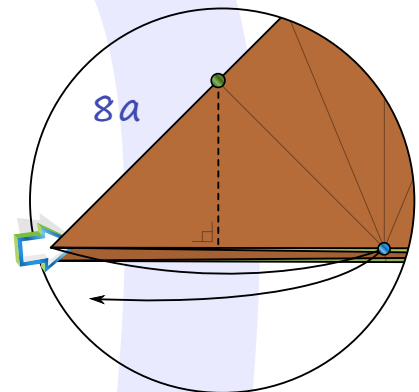
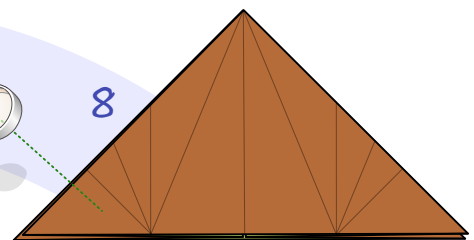
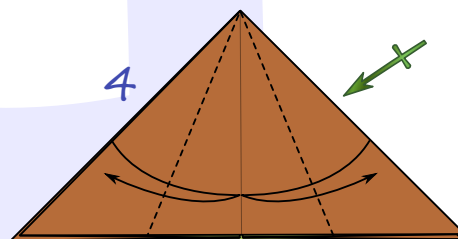
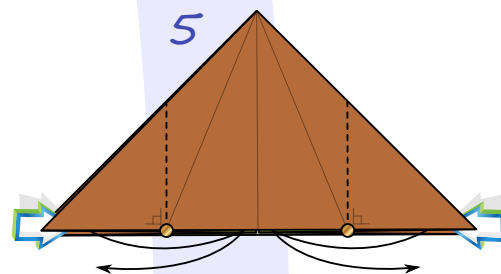
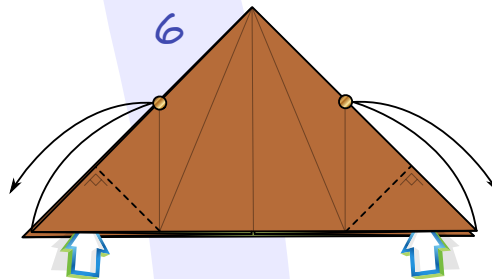
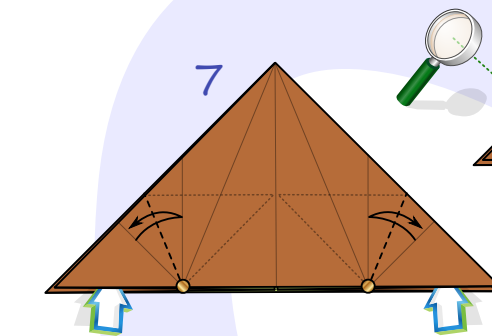
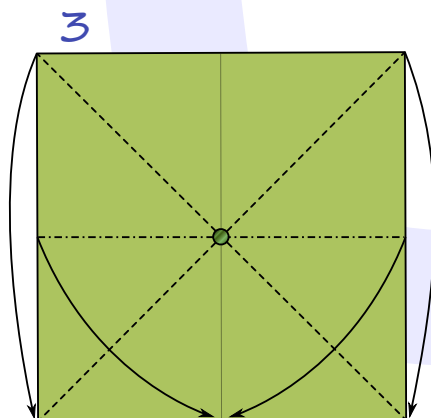
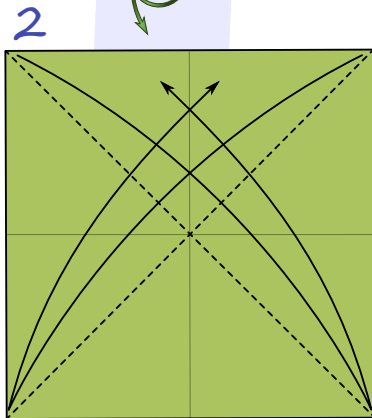
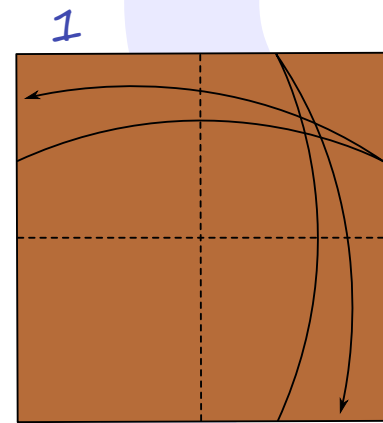
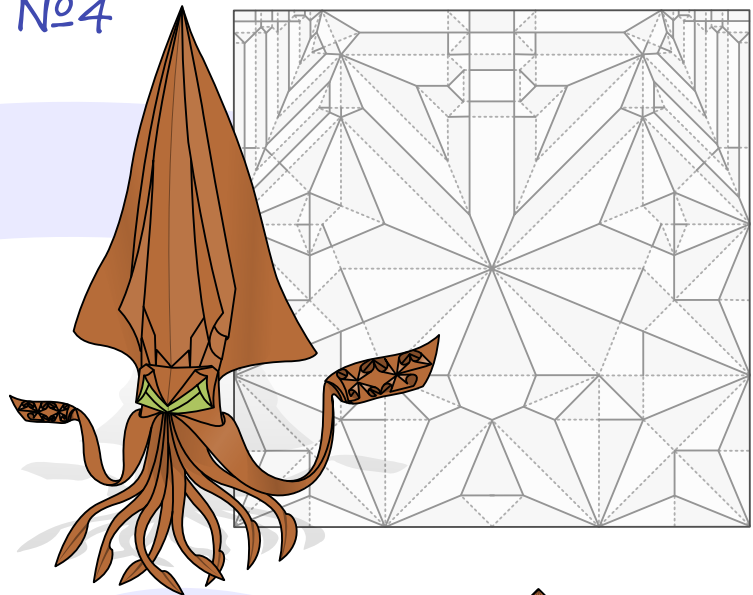
Andrey Ermakov (Russia)

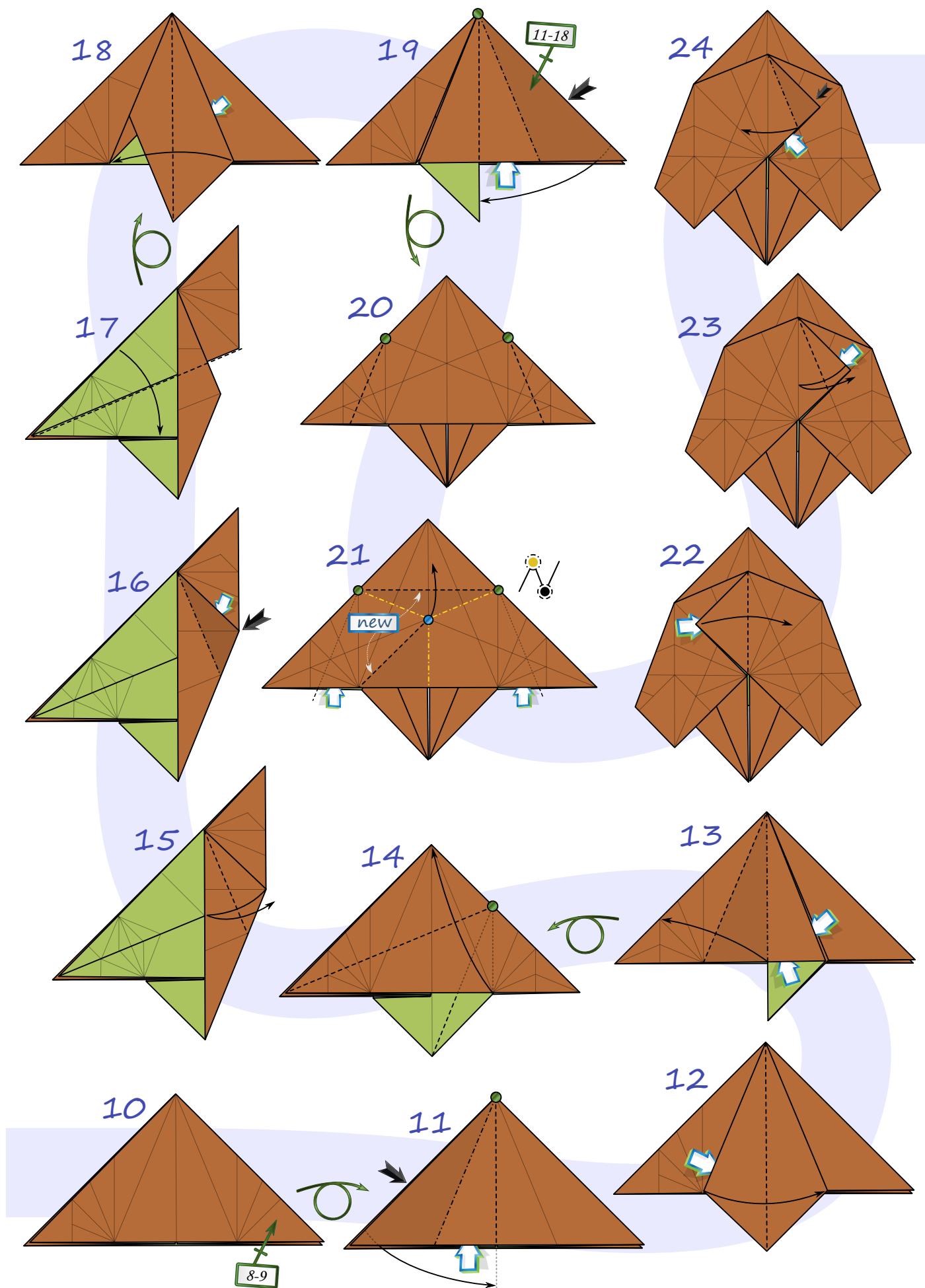
Difficulty: \*\*\*\*\*

Paper: 20-30 g/m<sup>2</sup>

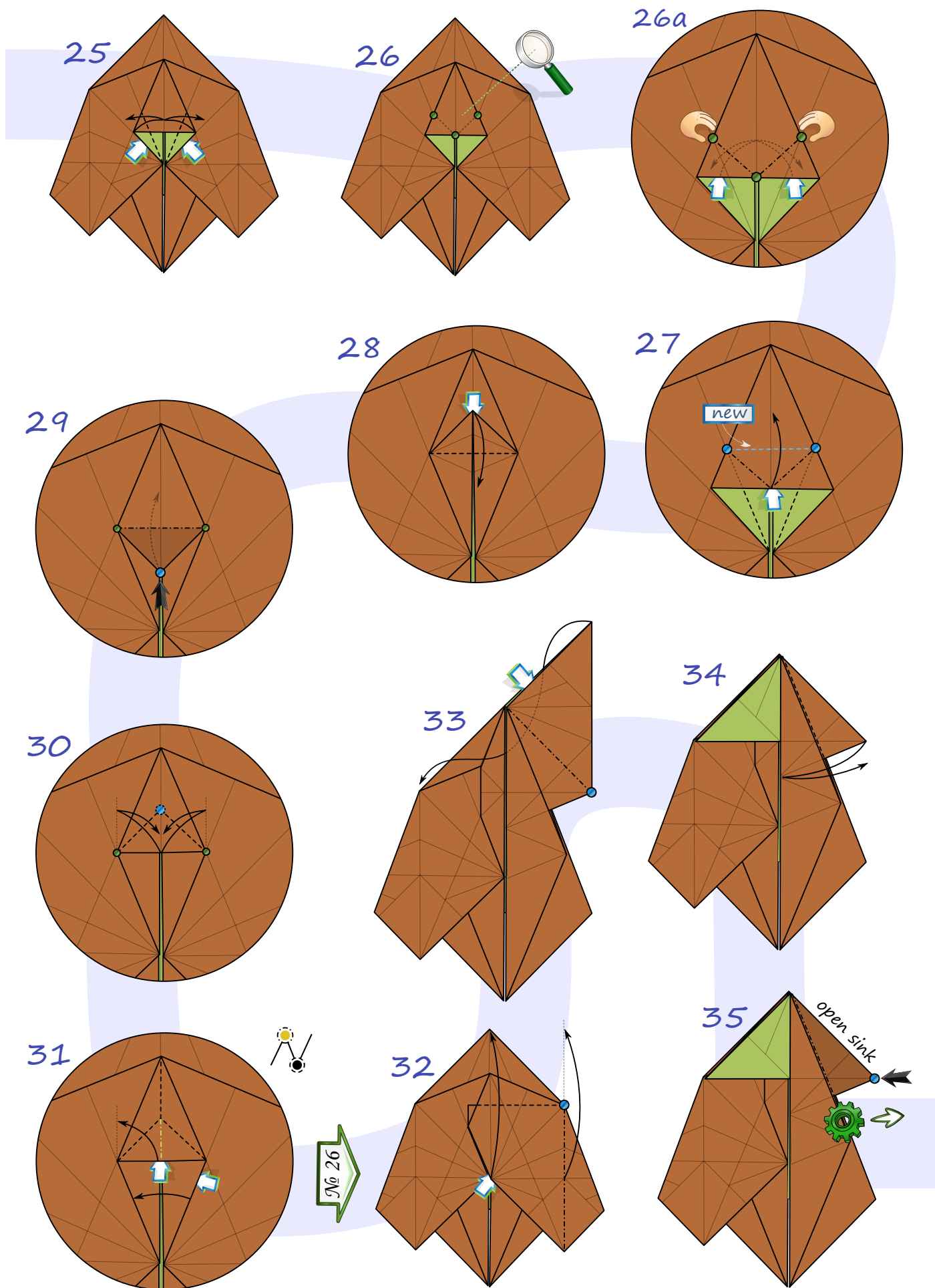
Paper size: 50-50 cm

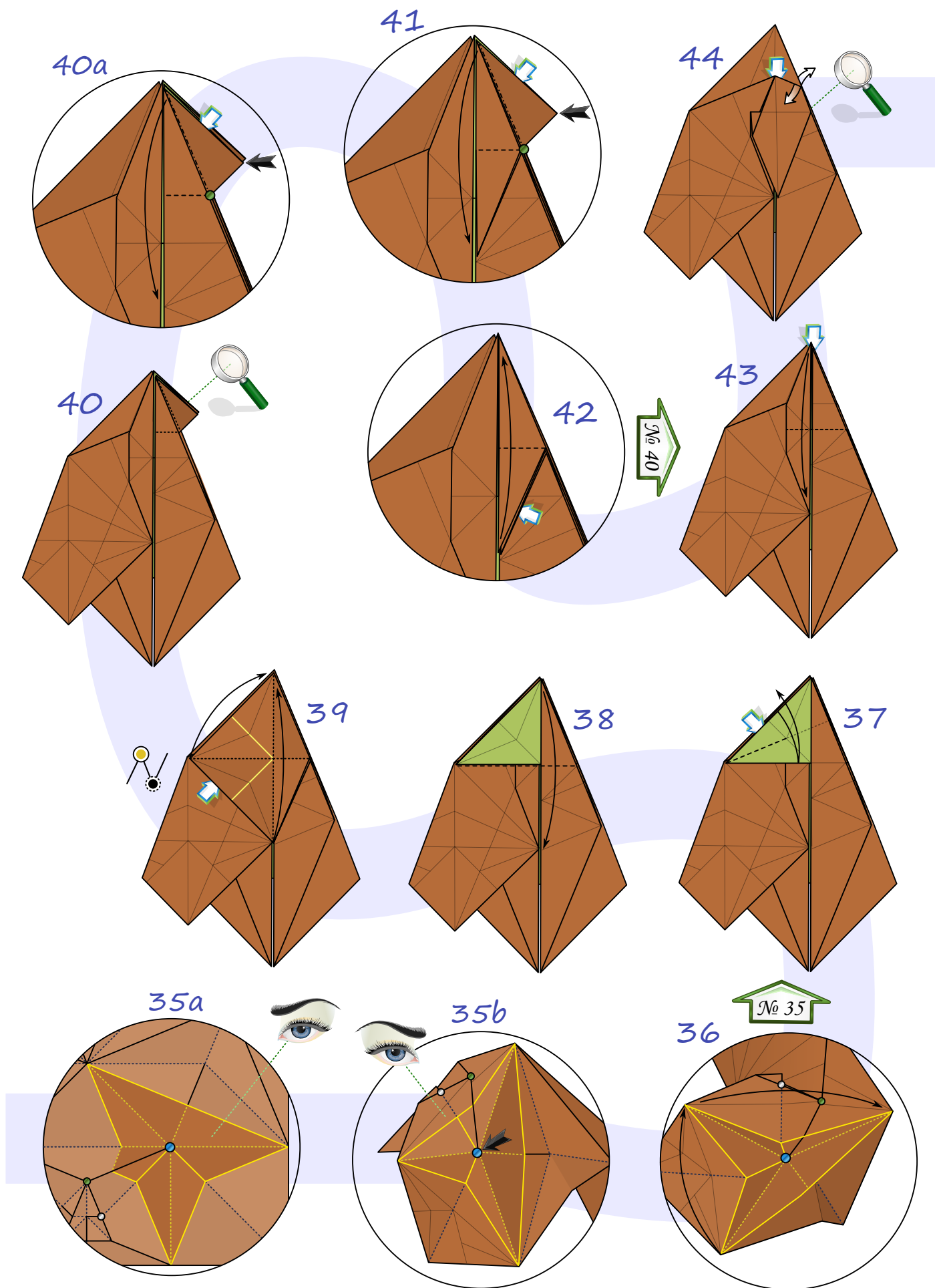
Max score: 10 points

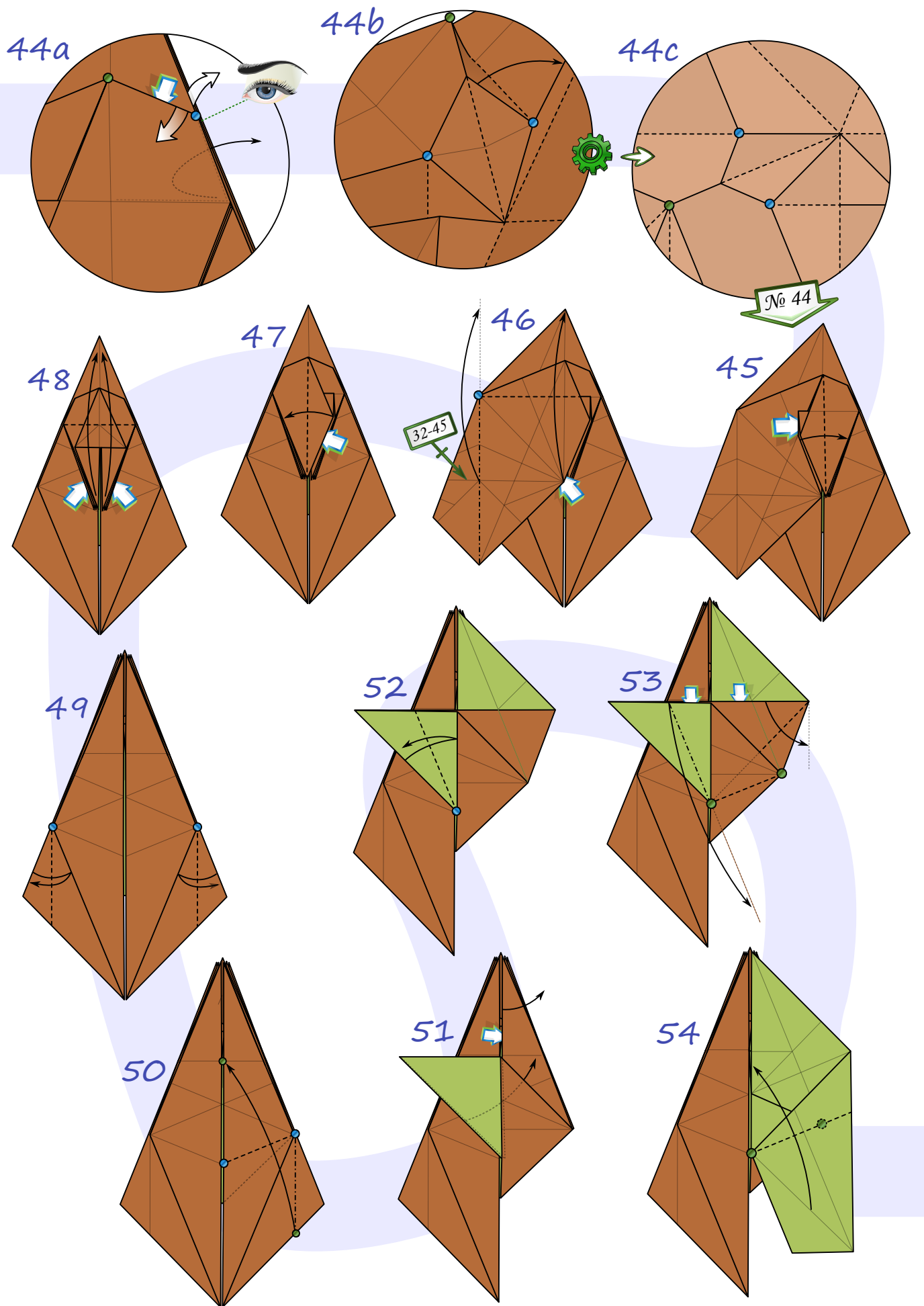




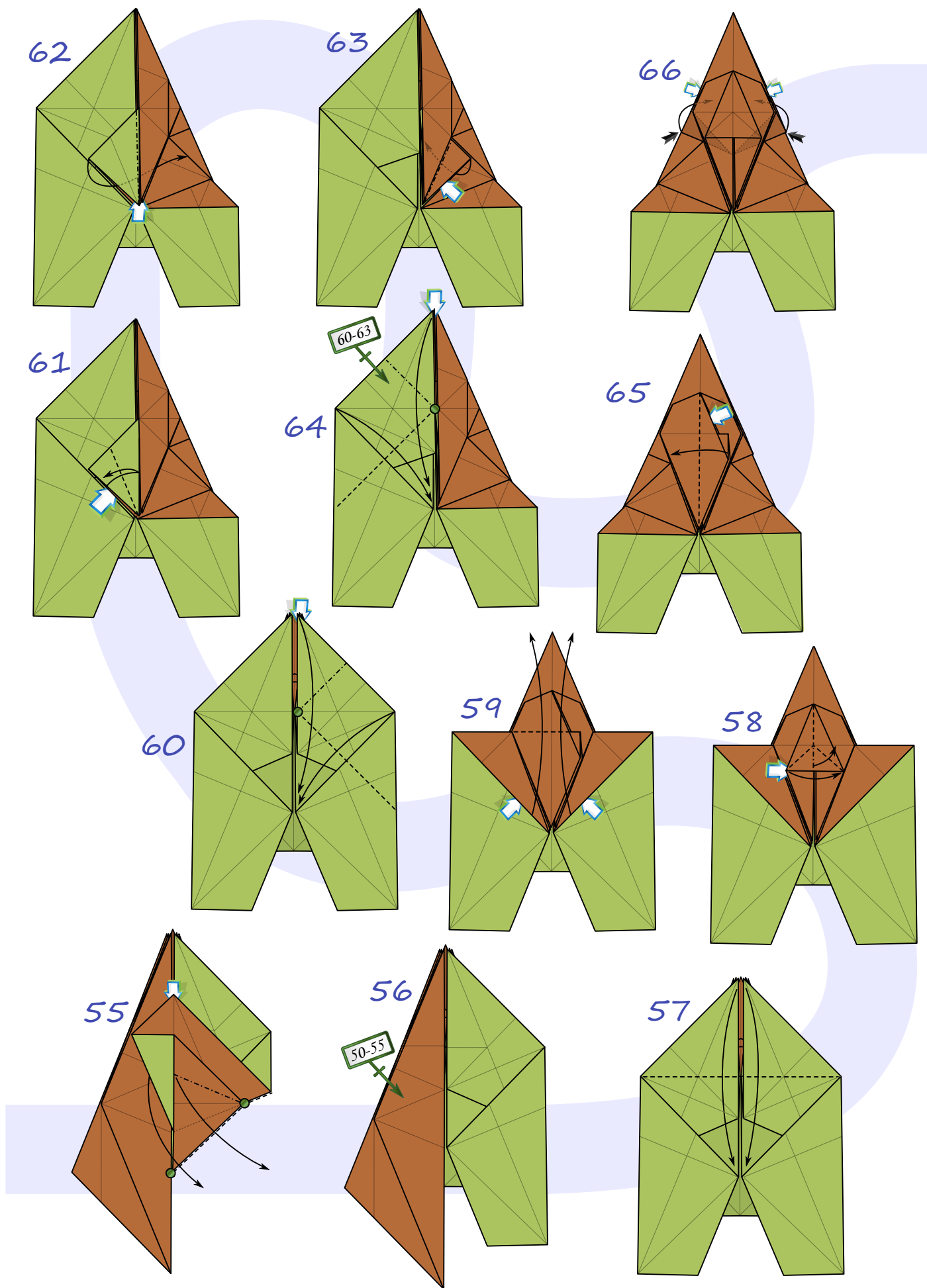


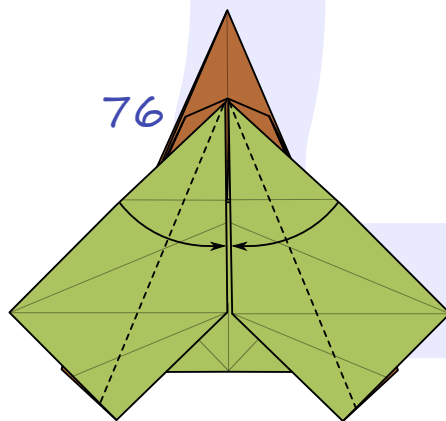
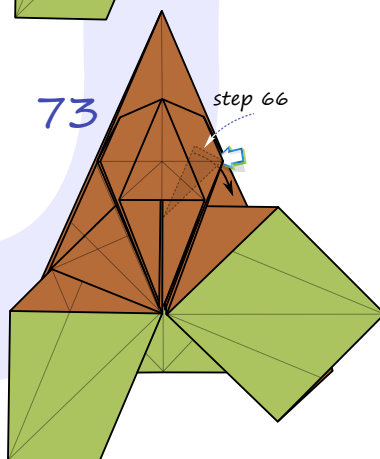
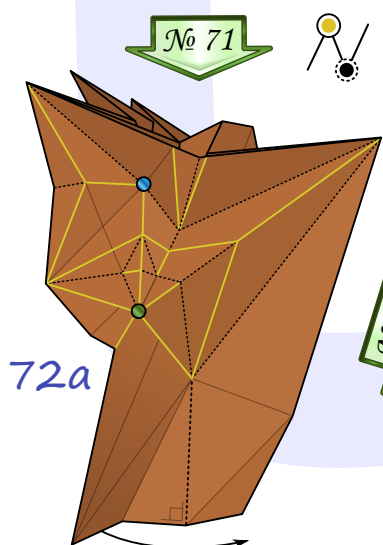
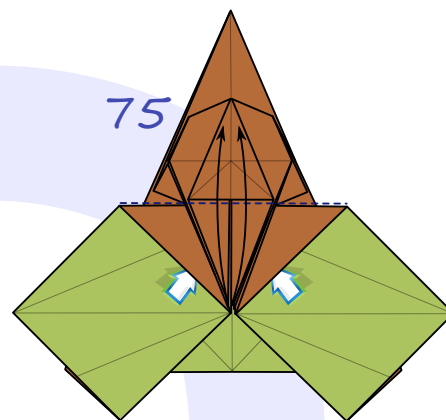
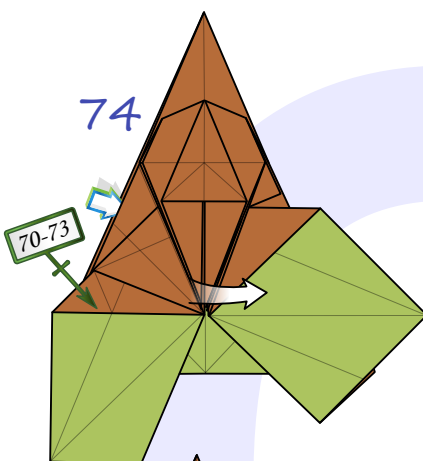
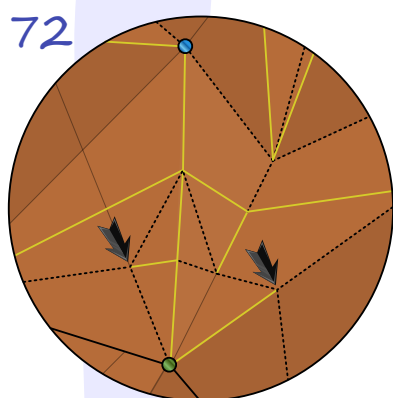
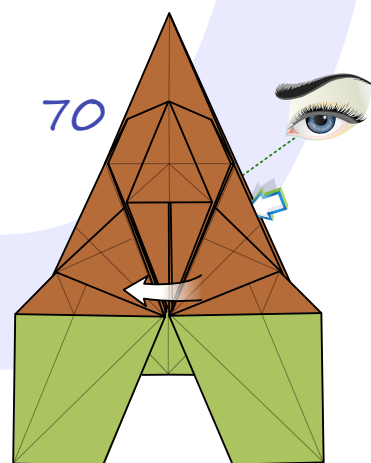
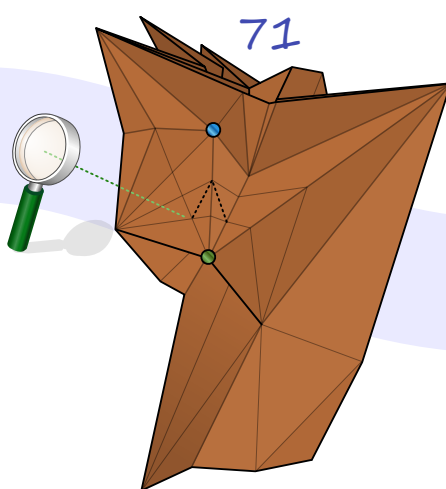
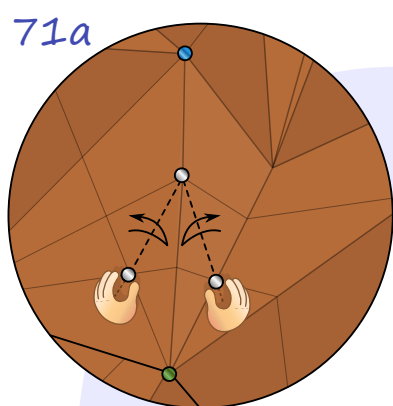
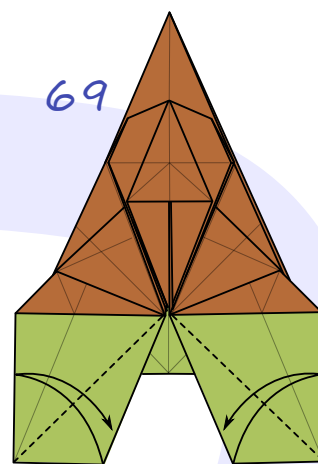
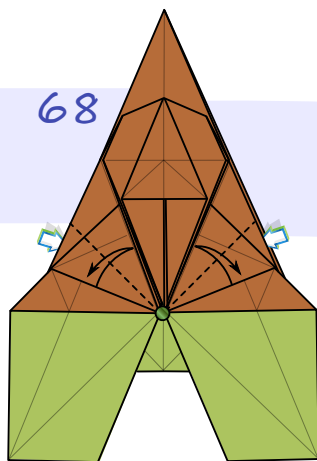
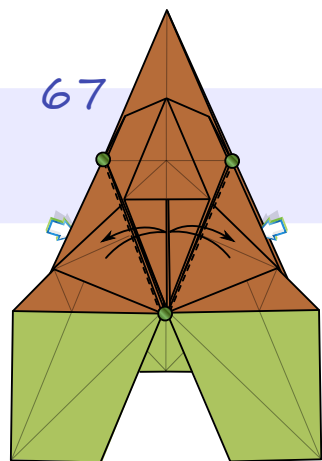


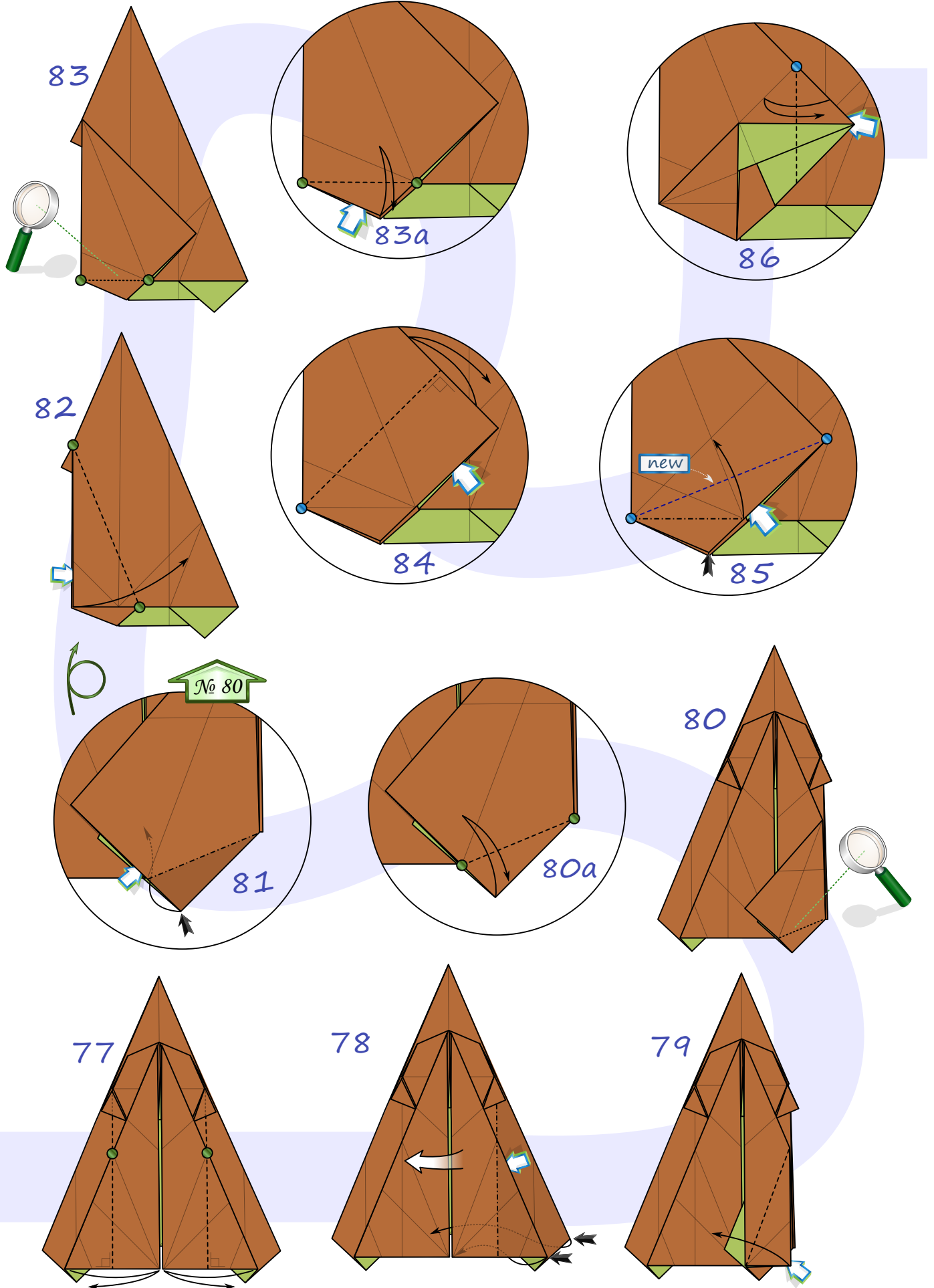


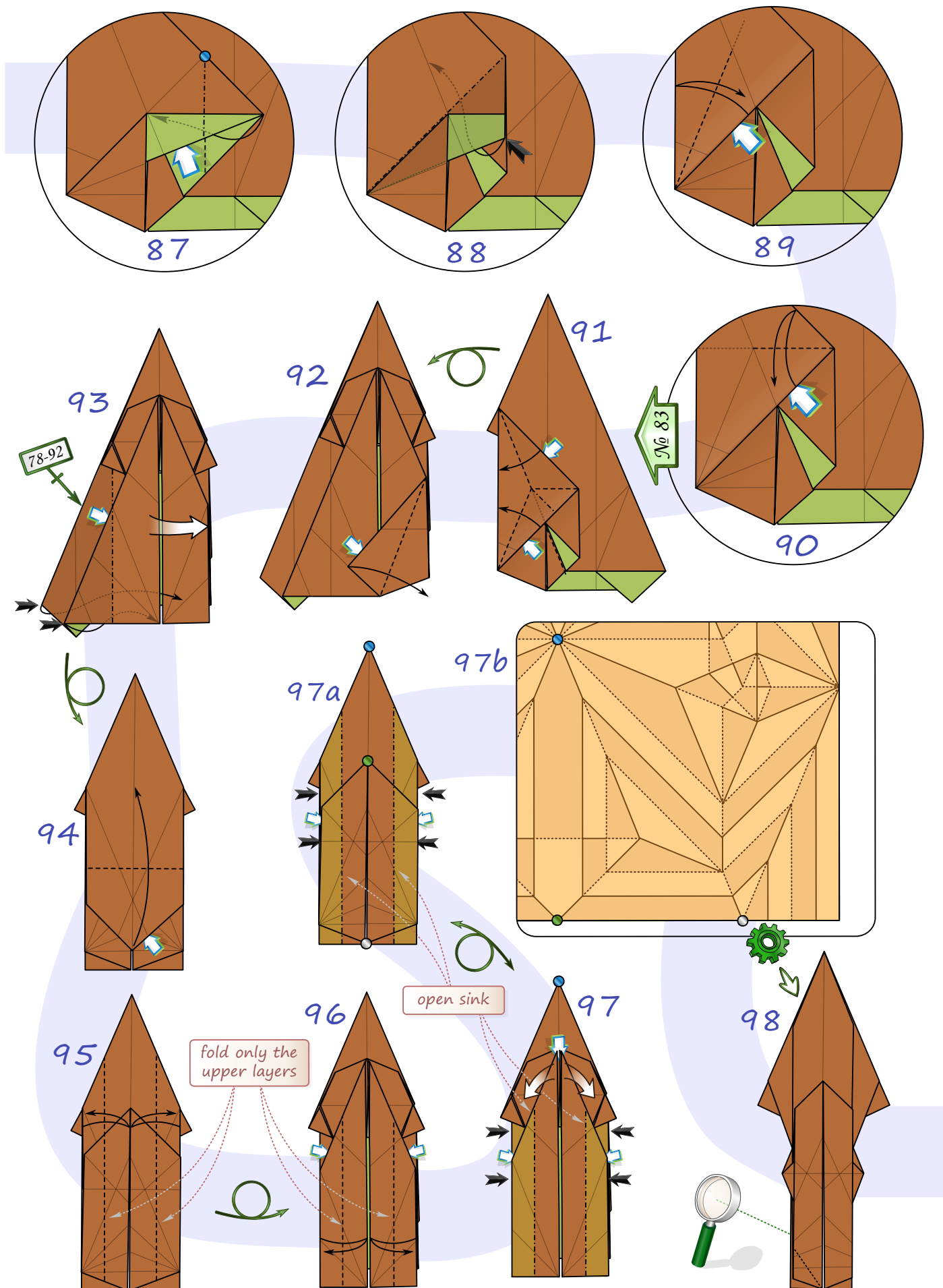


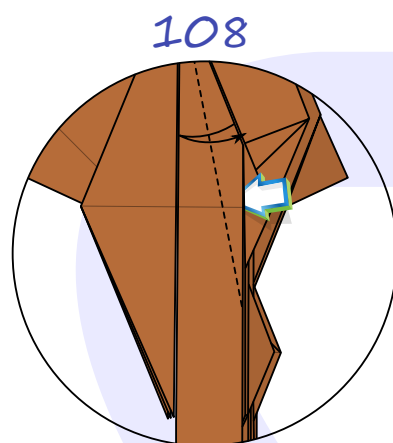
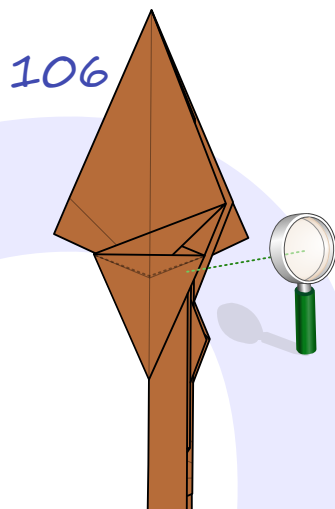
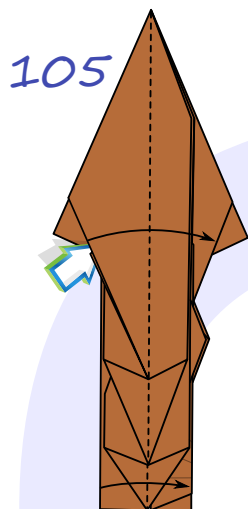




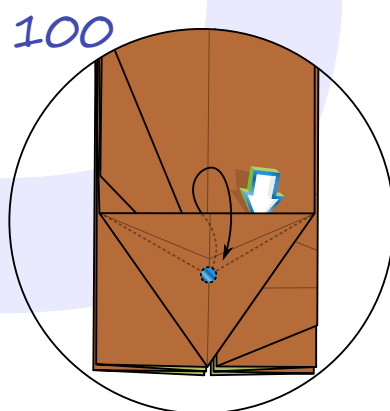
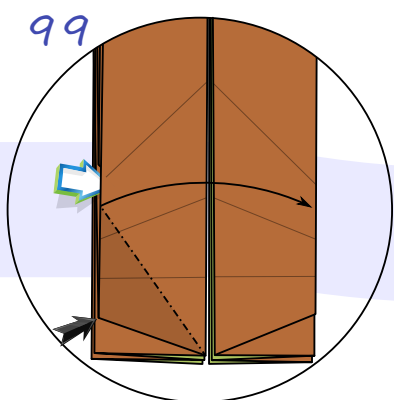
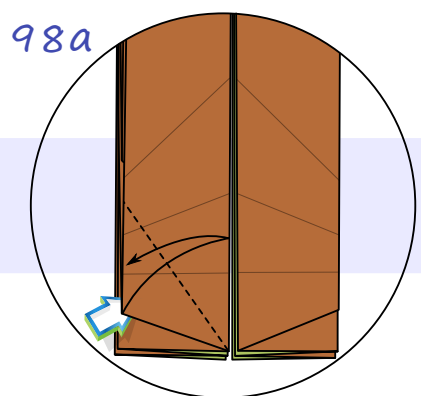
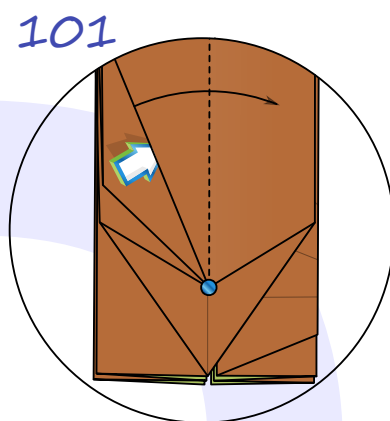
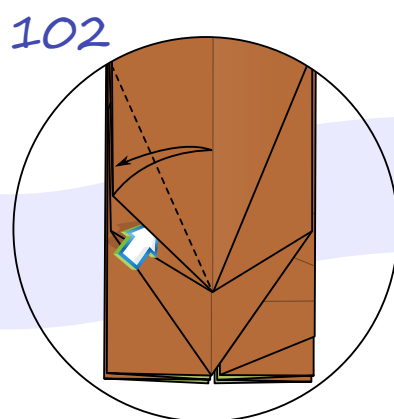
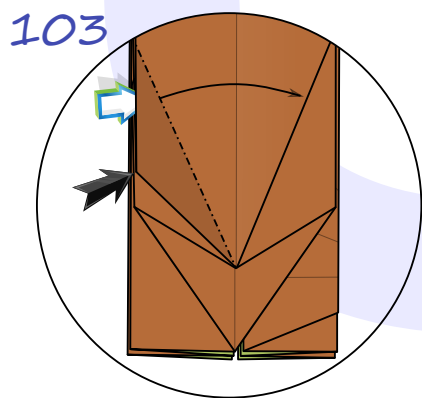
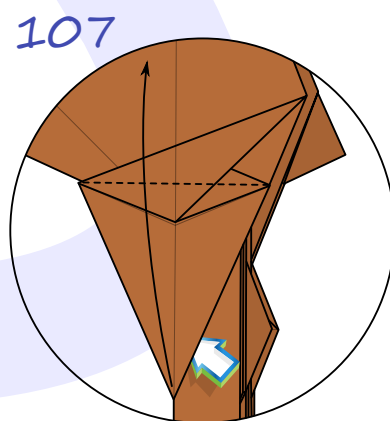
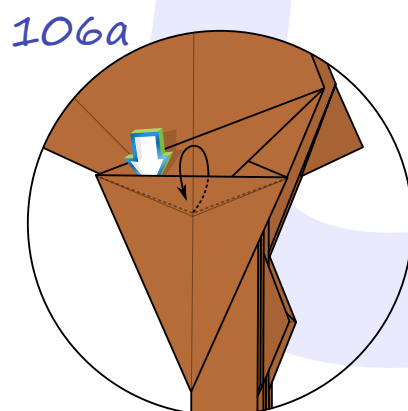
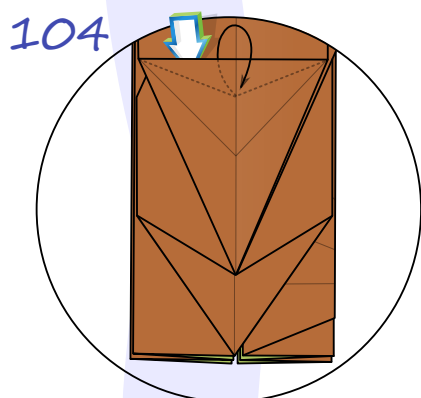


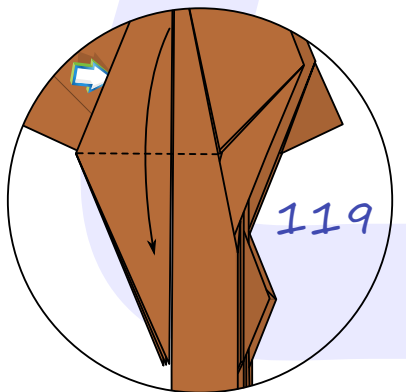
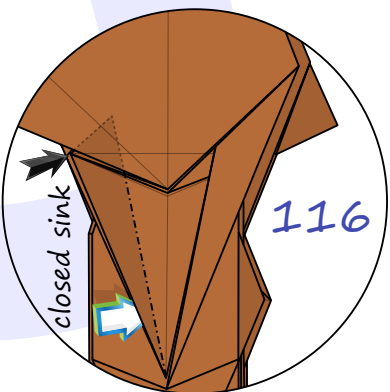
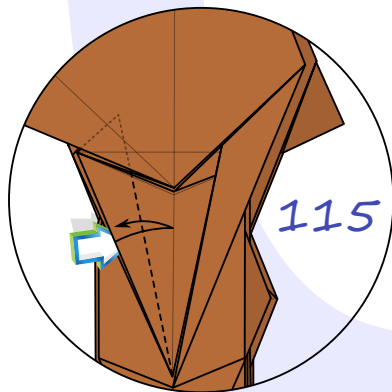
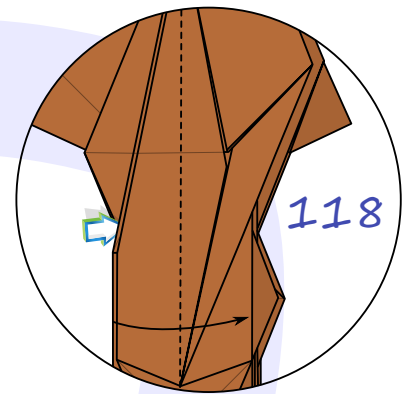
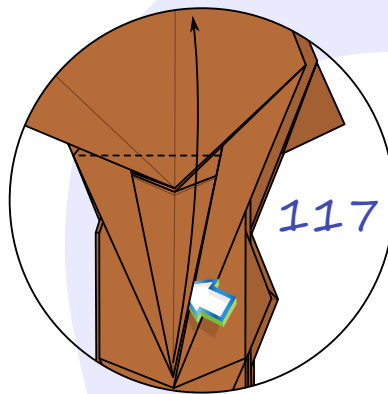
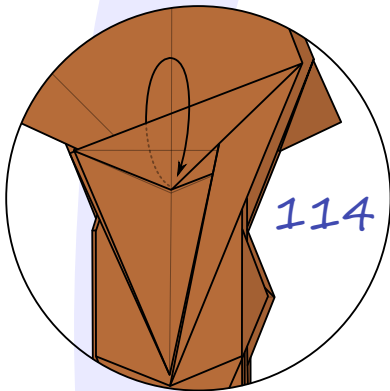
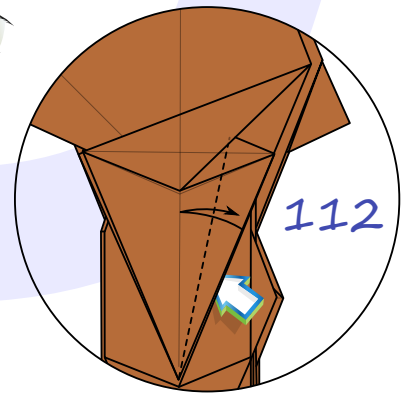
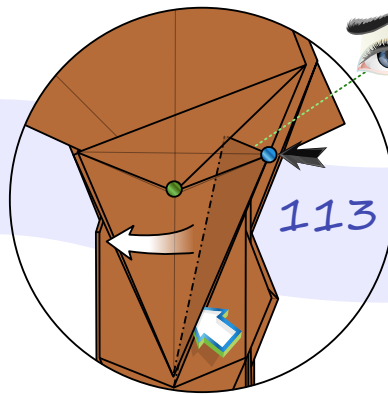
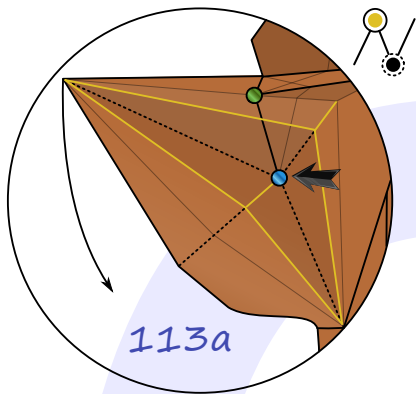
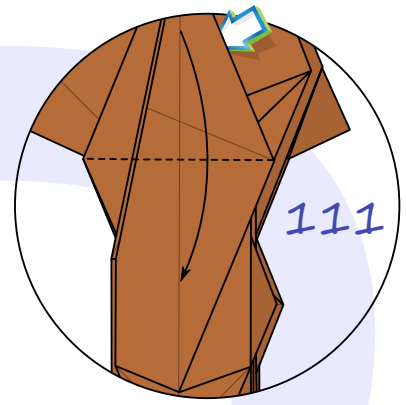
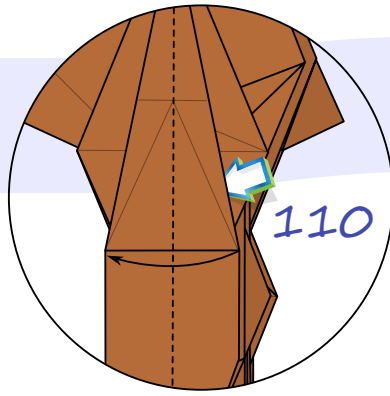
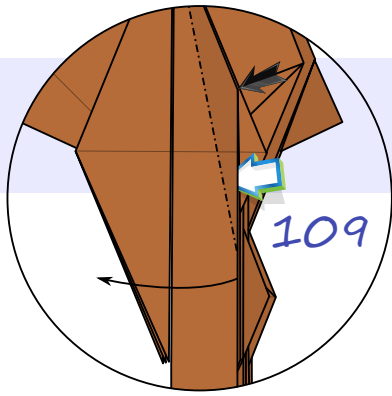






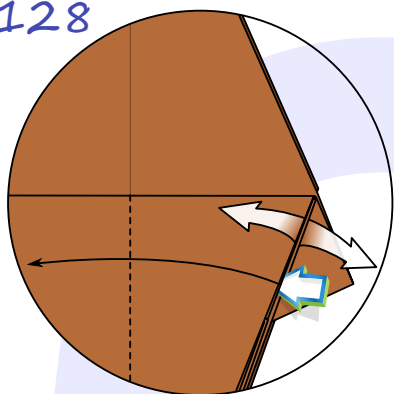
№ 98



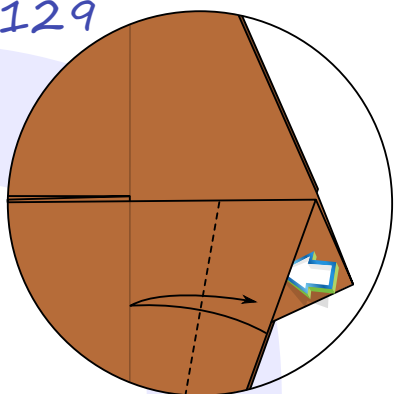




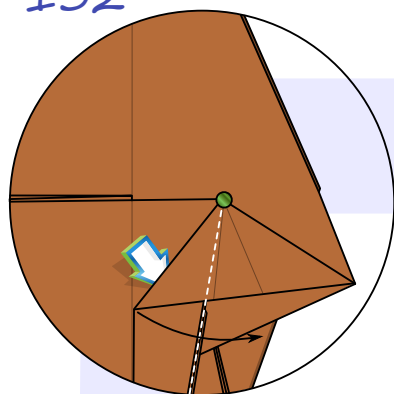
128



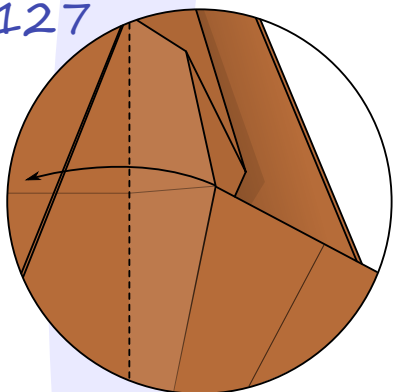
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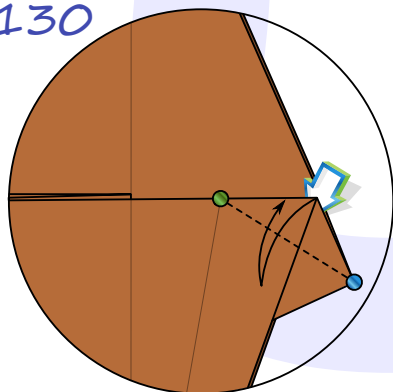
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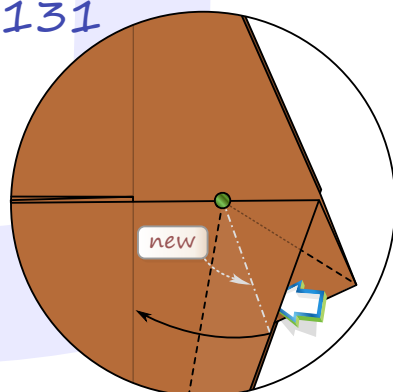
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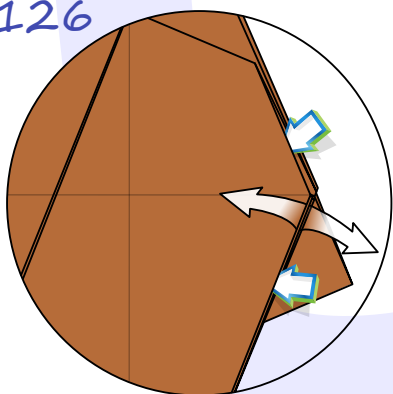
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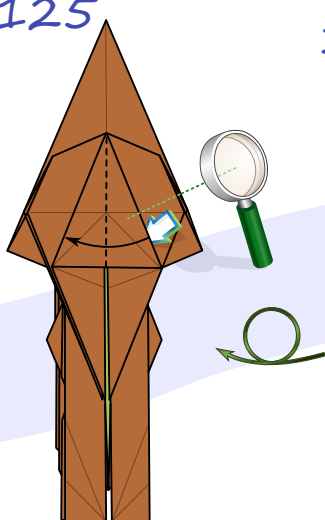
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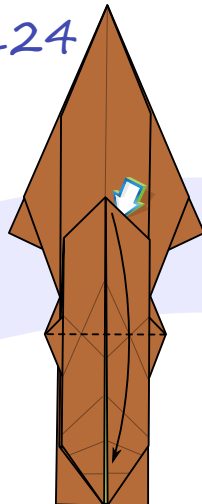
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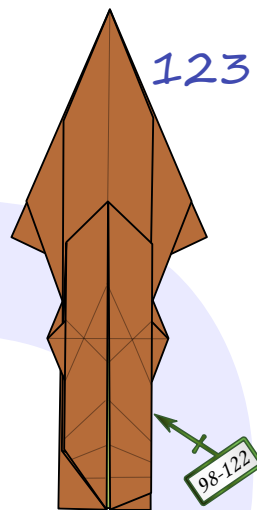
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124

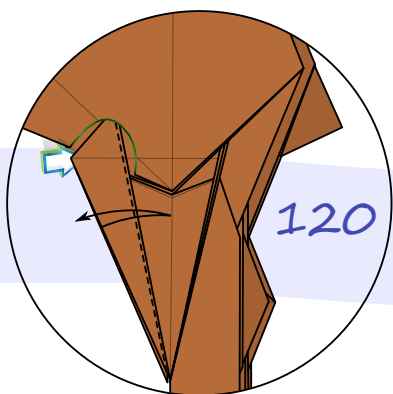


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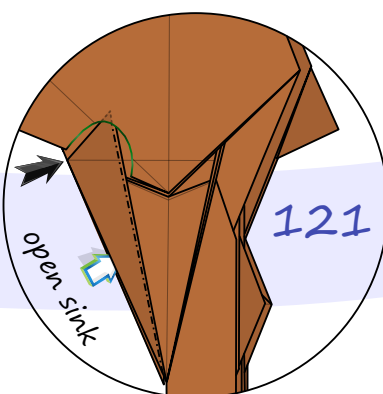


№ 98

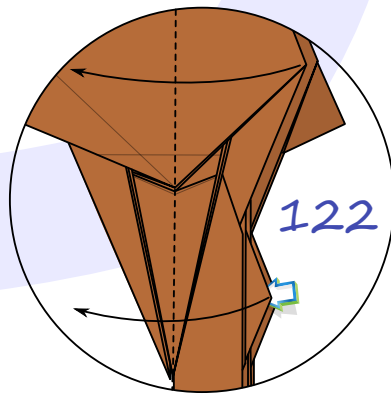
120



121

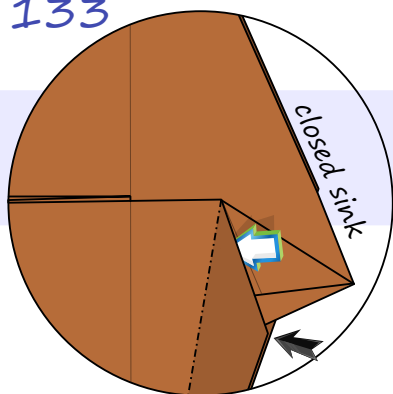


122

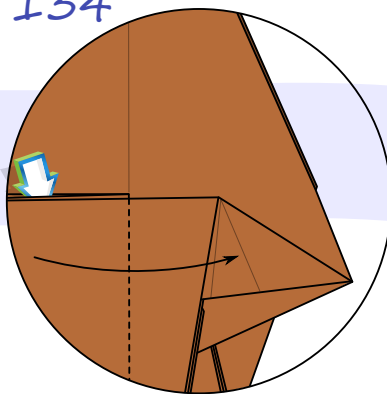




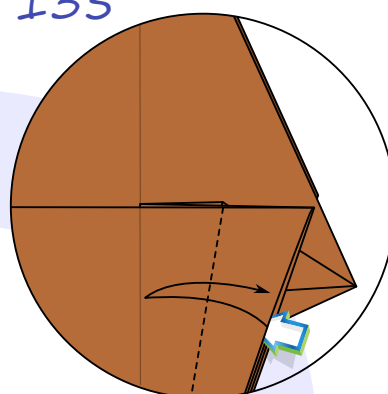
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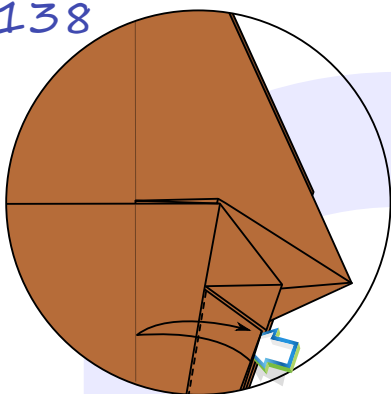
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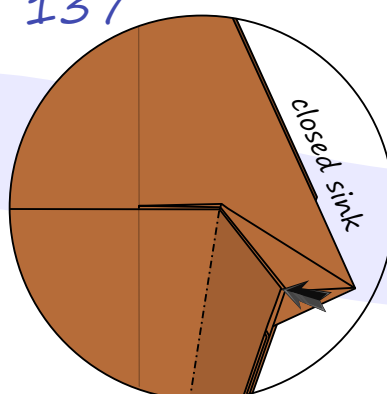
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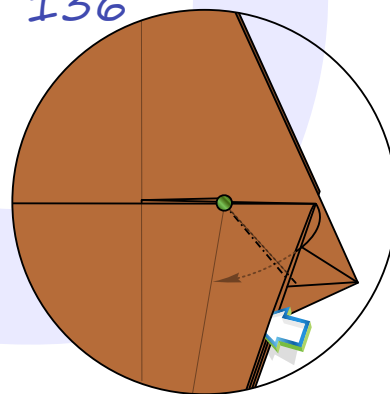
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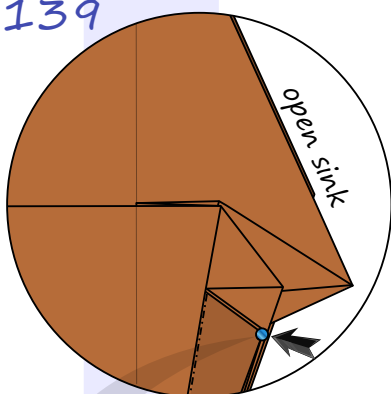
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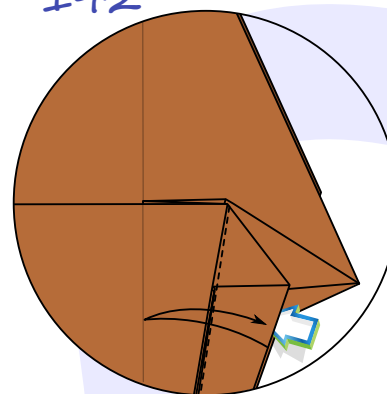
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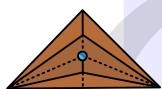
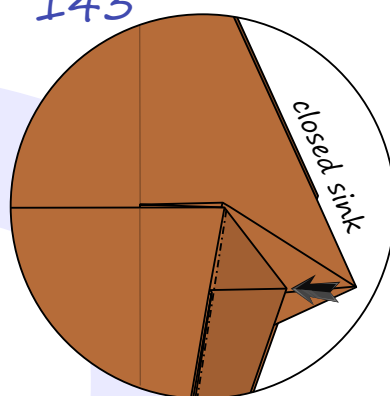
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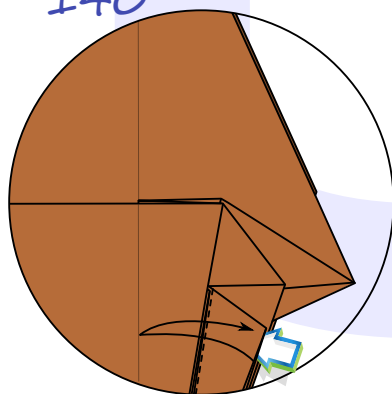
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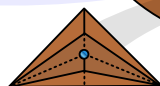
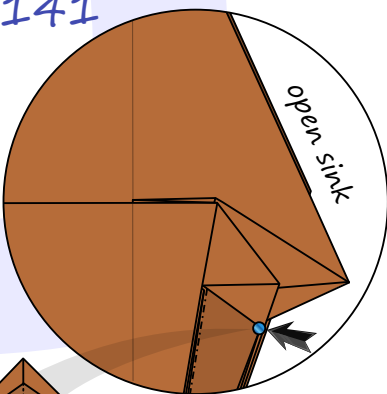
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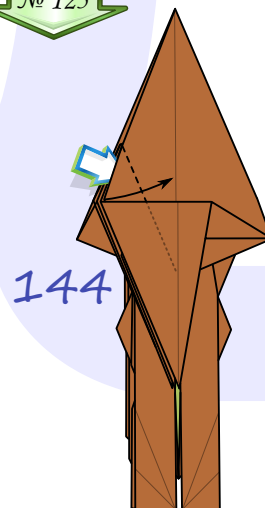
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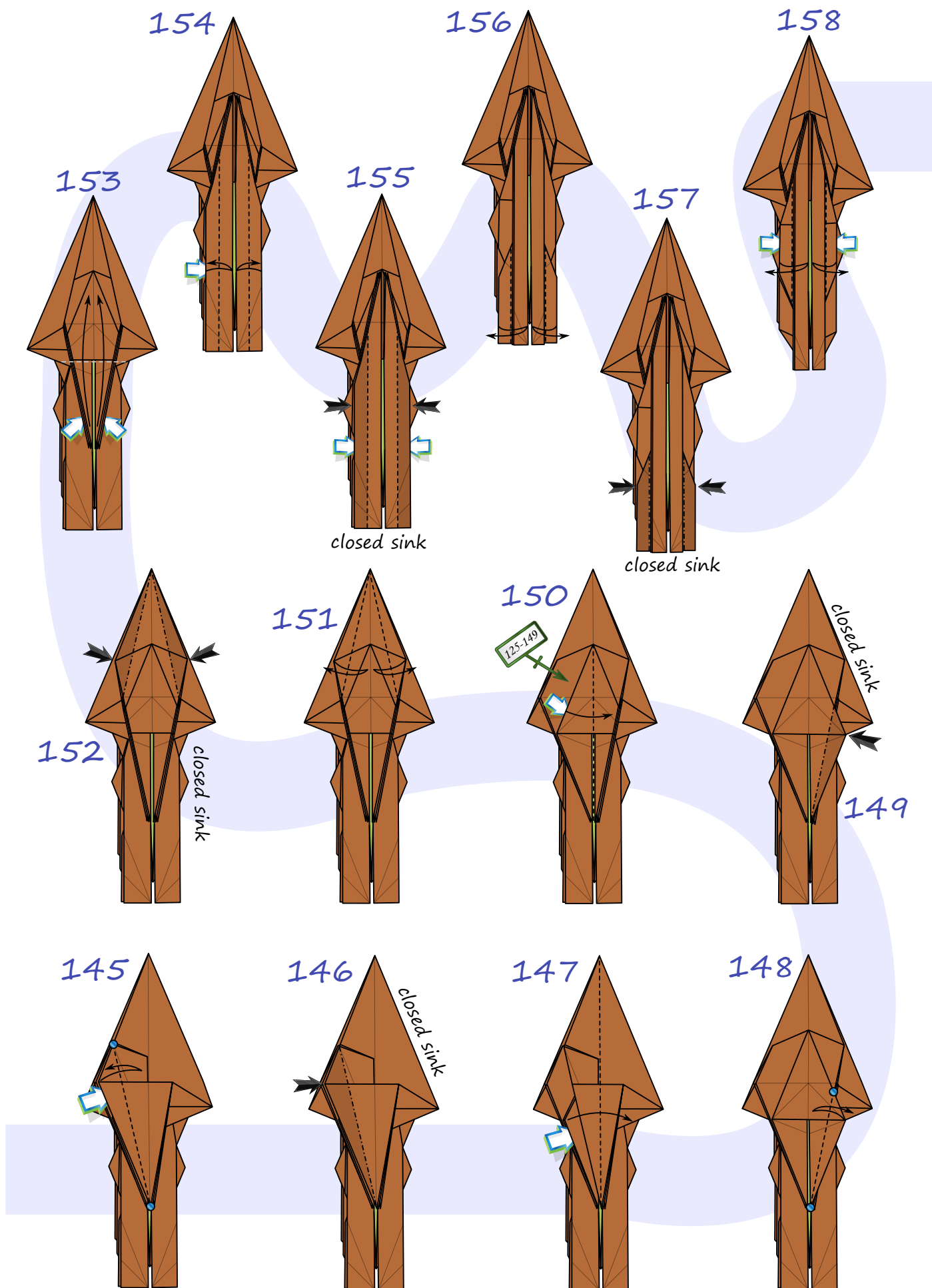
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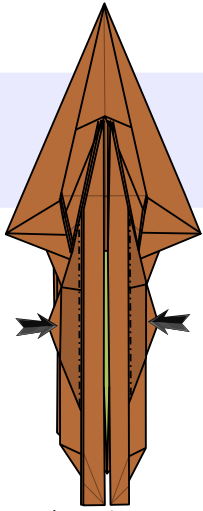
№ 125



144

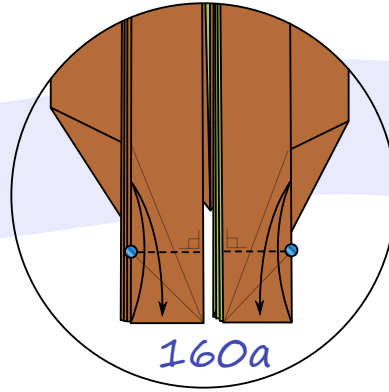
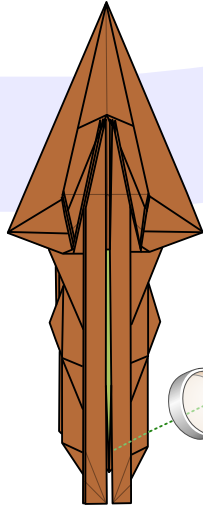


159

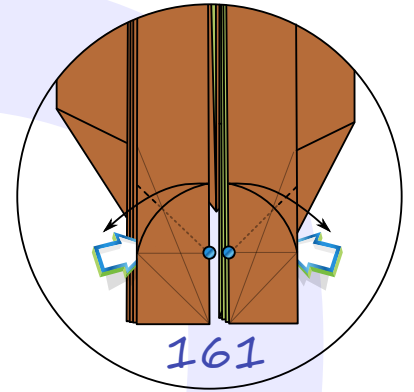


closed sink

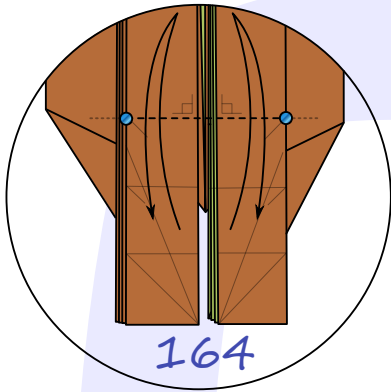
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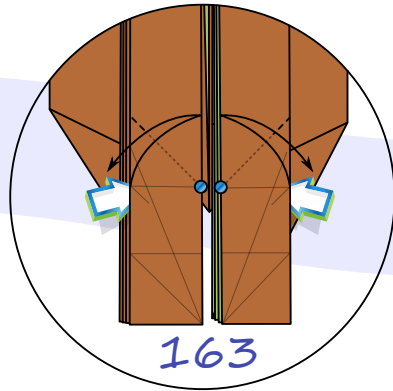
160a



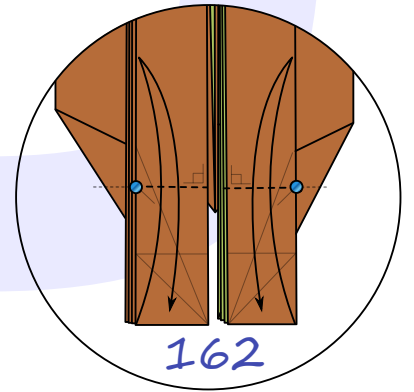
161



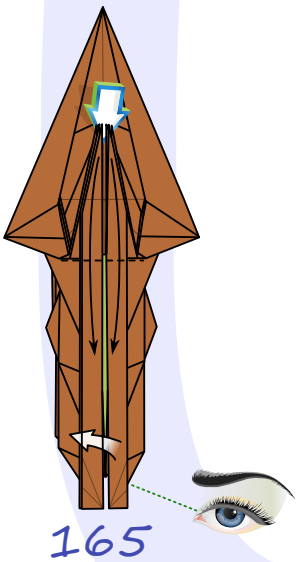
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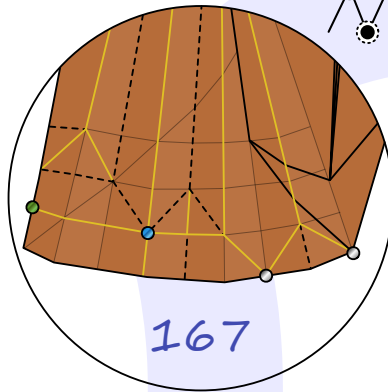
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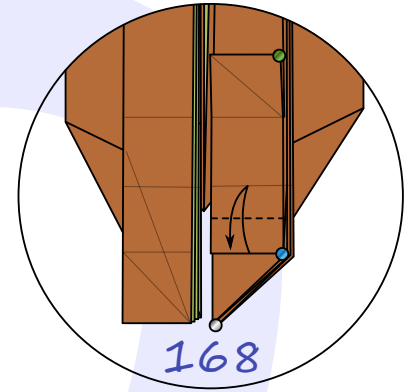
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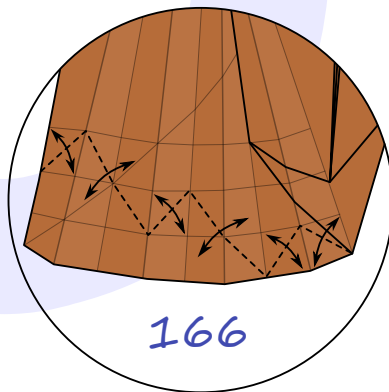
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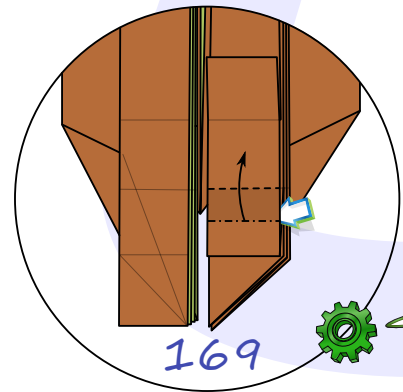
167



168

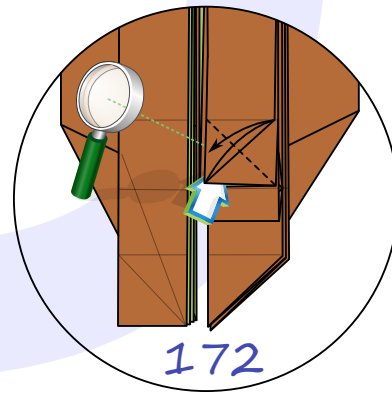
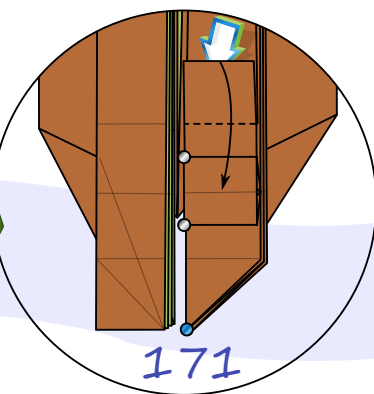
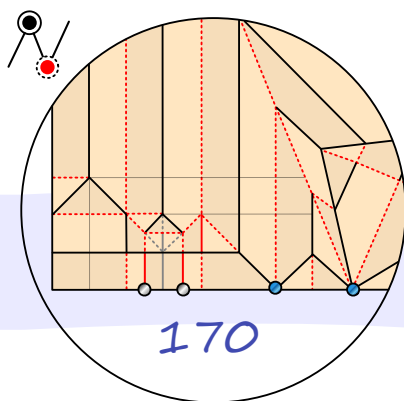
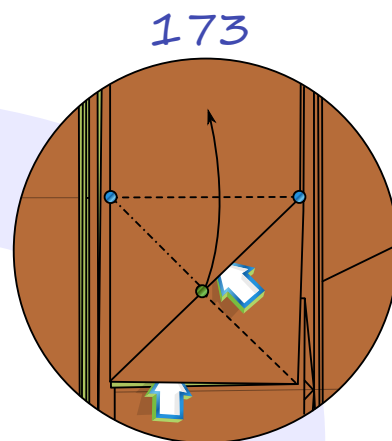
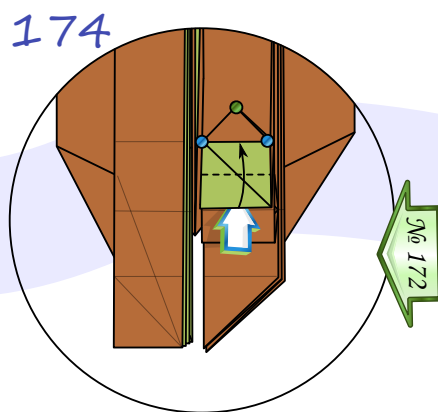
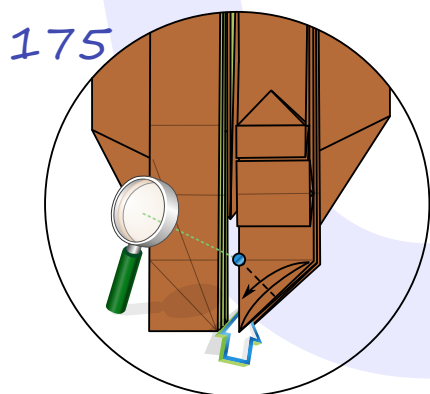
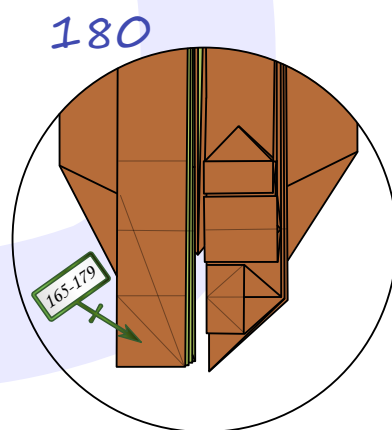
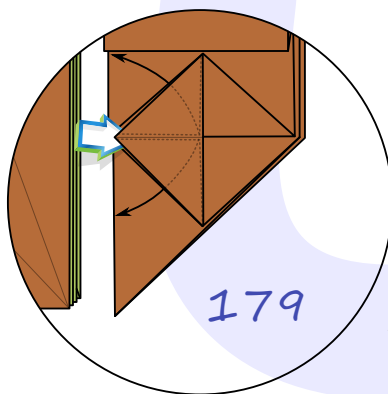
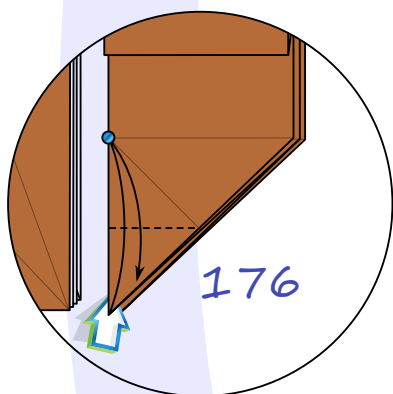
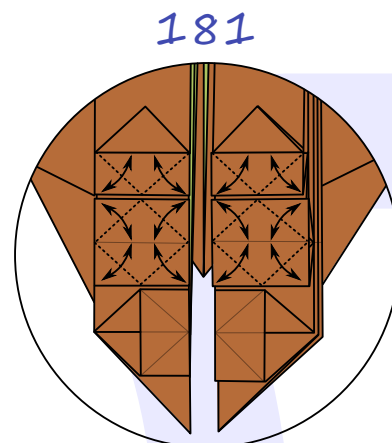
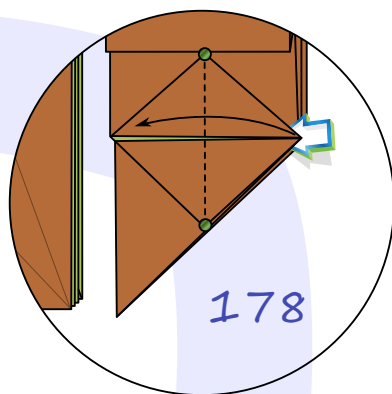
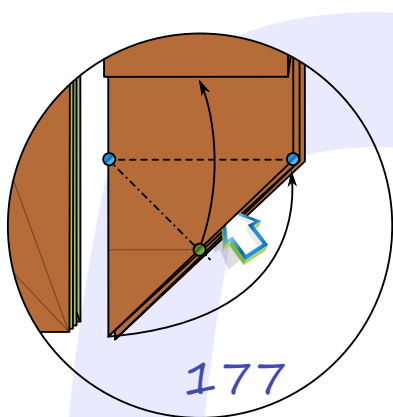


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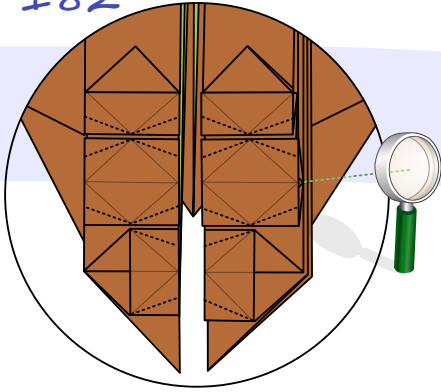


169

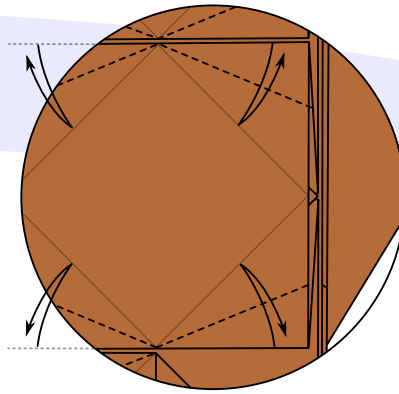




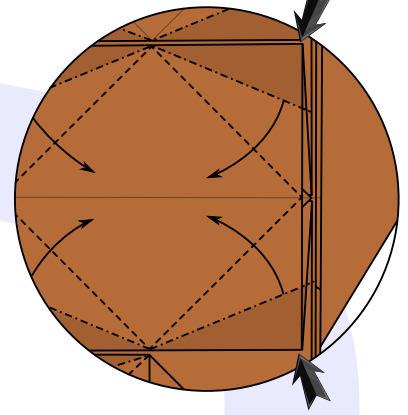
182



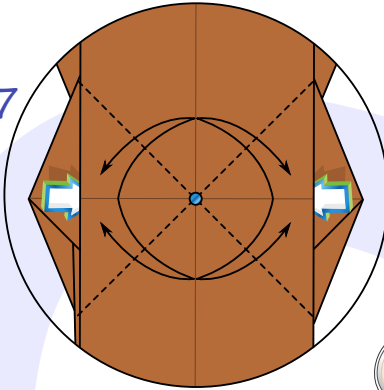
183



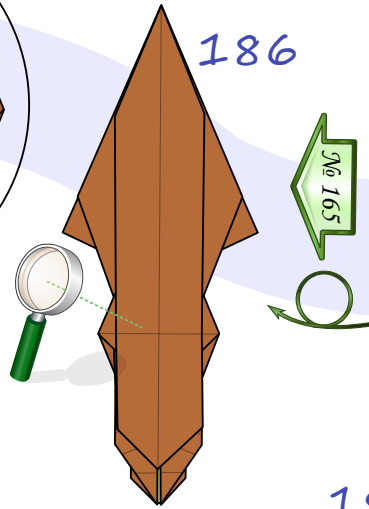
184



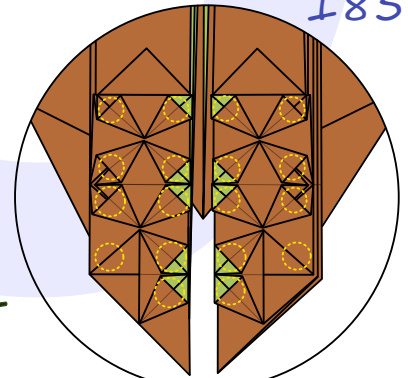
187



186

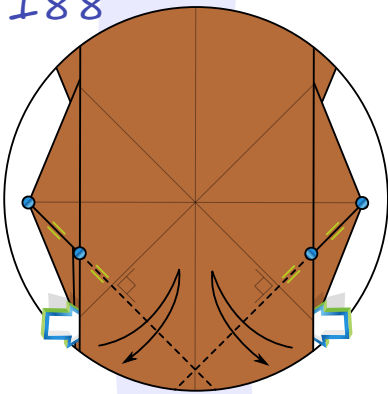


185

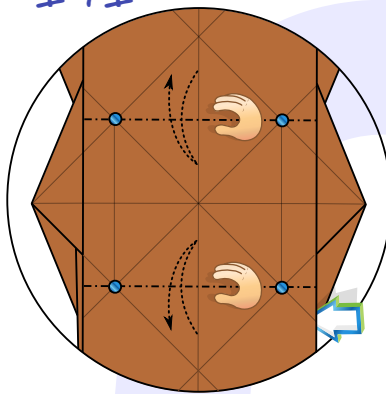


shape the suckers

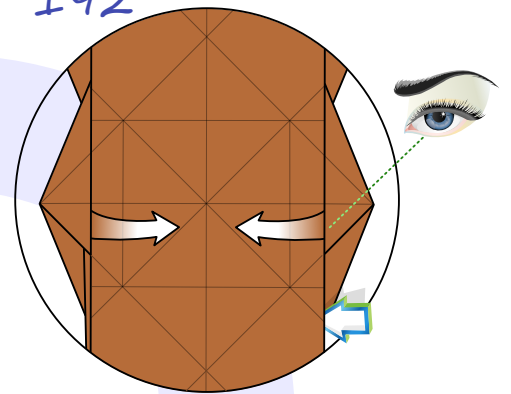
188



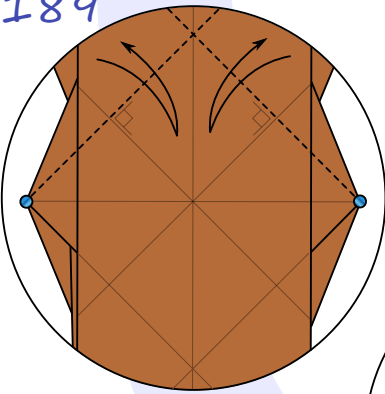
191



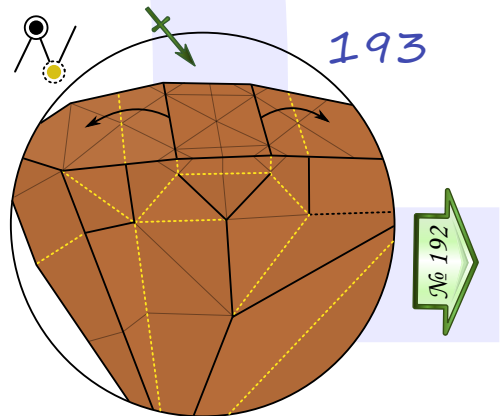
192



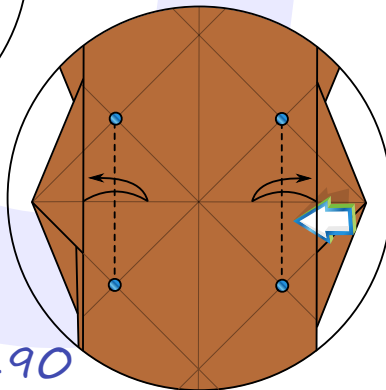
189



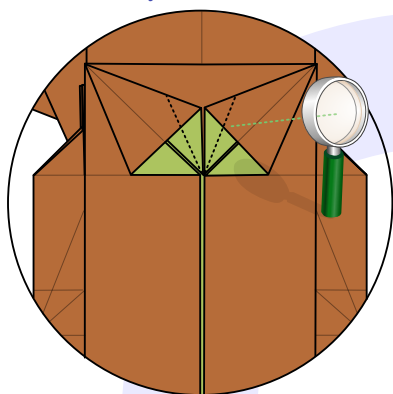
193



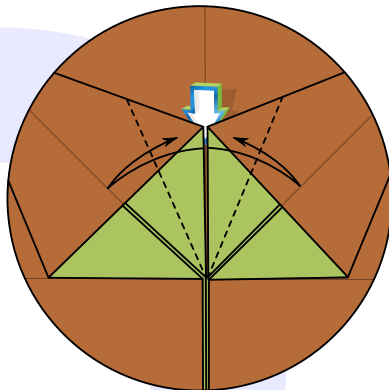
190



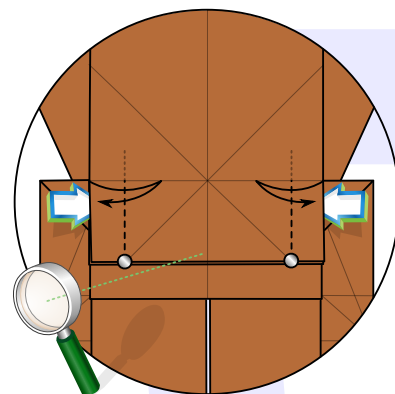
201



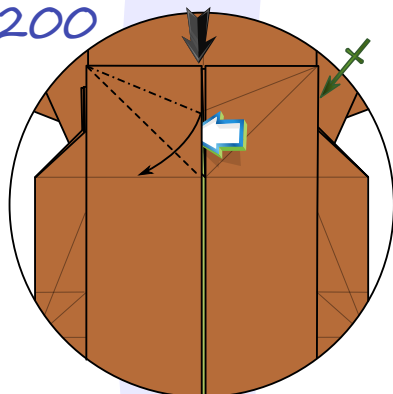
201a



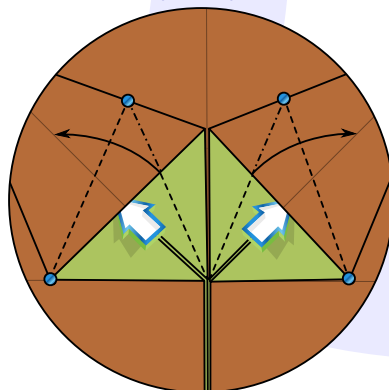
204



200

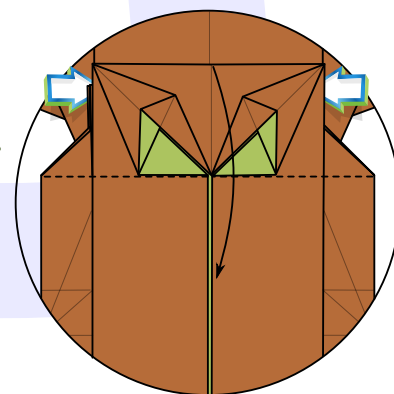


202

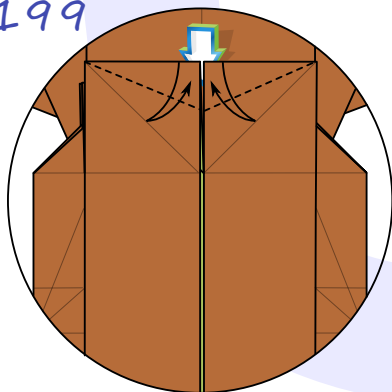


№ 201

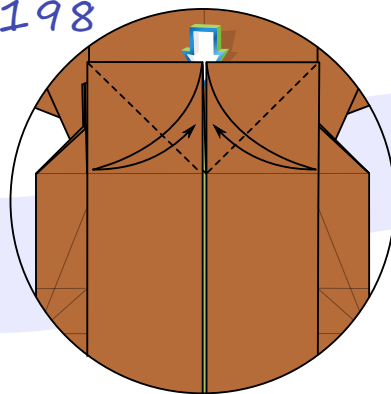
203



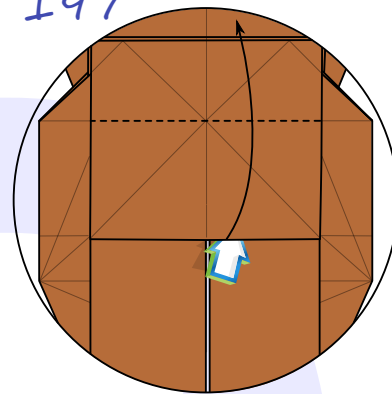
199



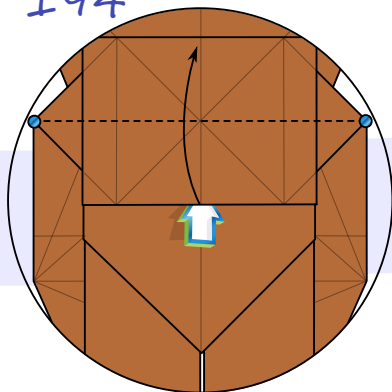
198



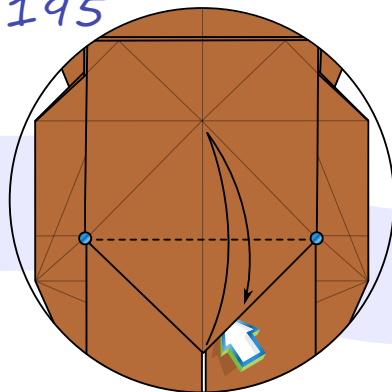
197



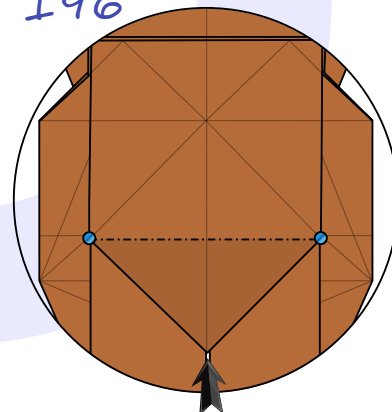
194



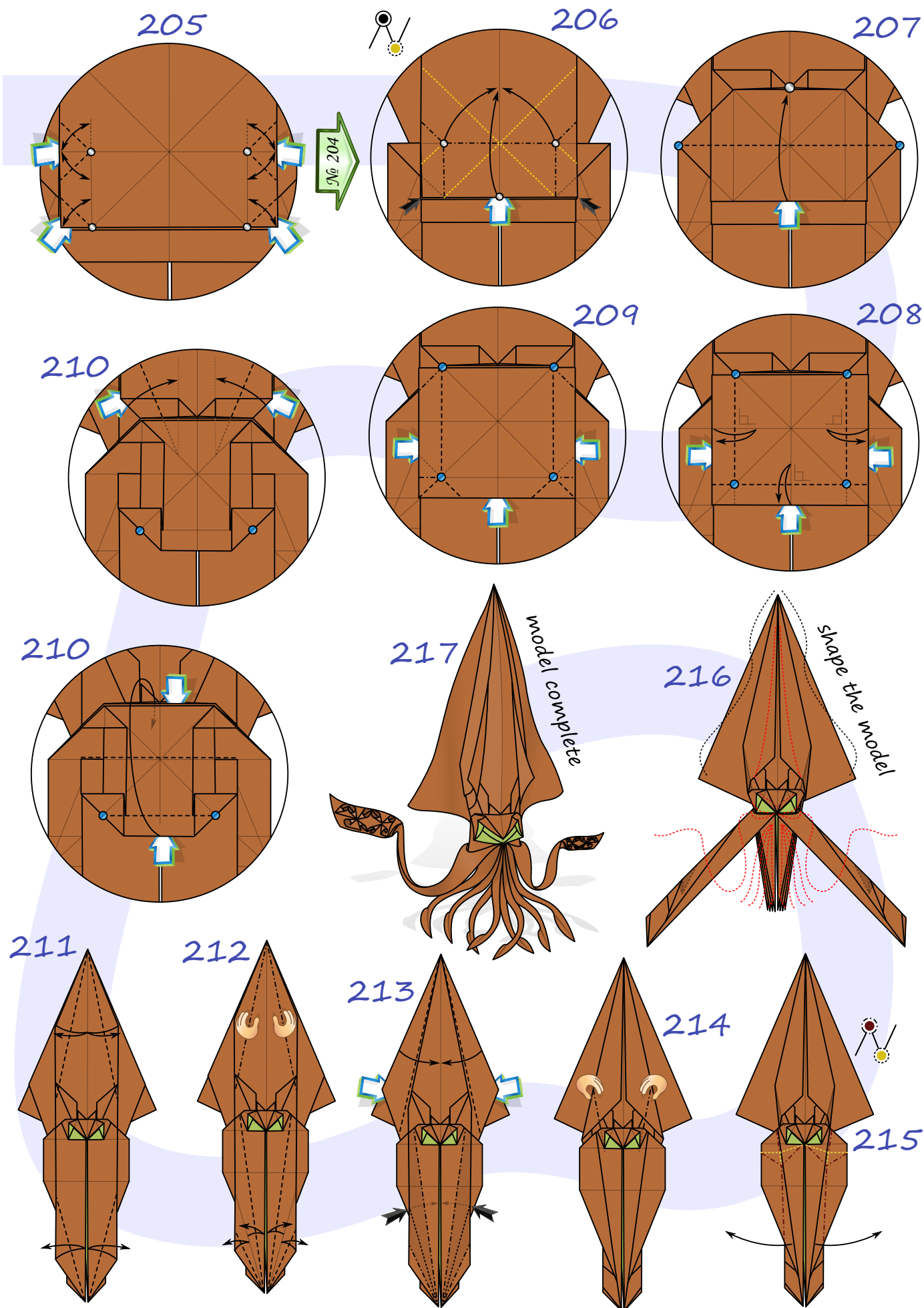
195



196









## Task №5

### Russian Lilac

Andrey Ermakov (Russia)

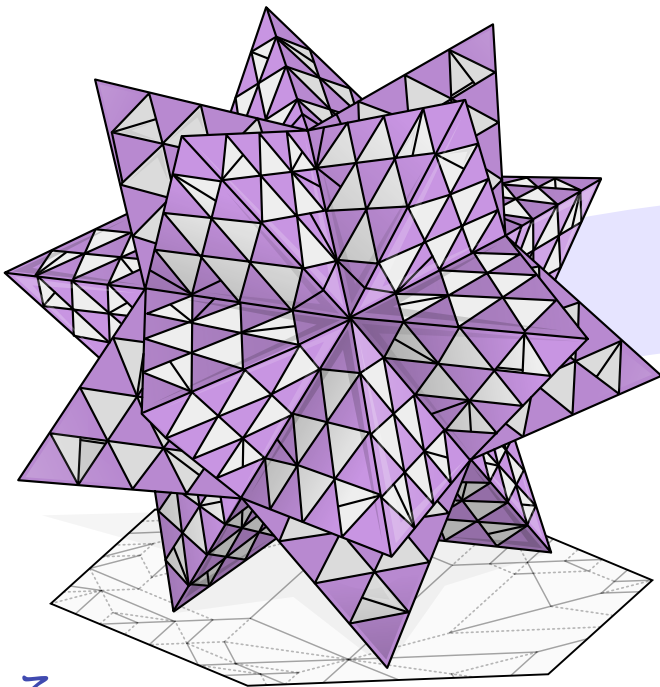
Difficulty: \*\*\*\*\*

Paper: 40-50 g/m<sup>2</sup>

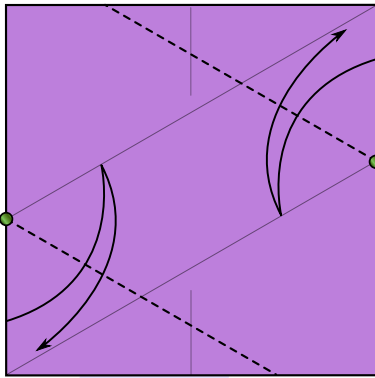
Paper size: 1-1 m

Number of units: 30

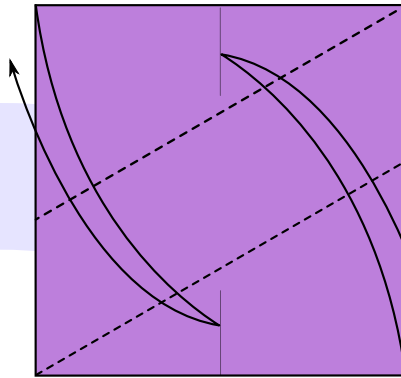
Max score: 20 points



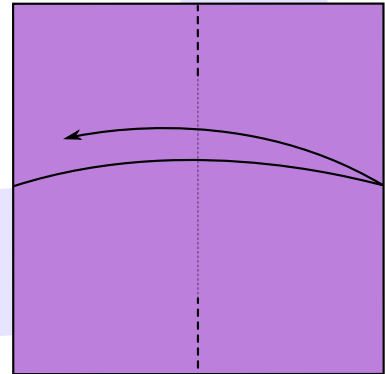
3



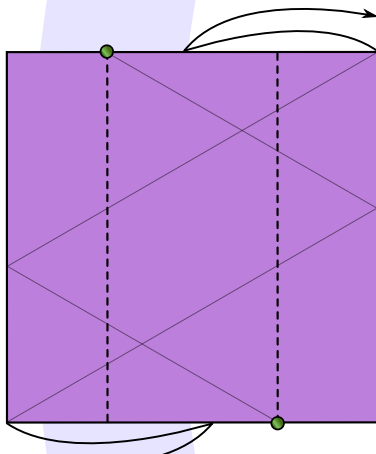
2



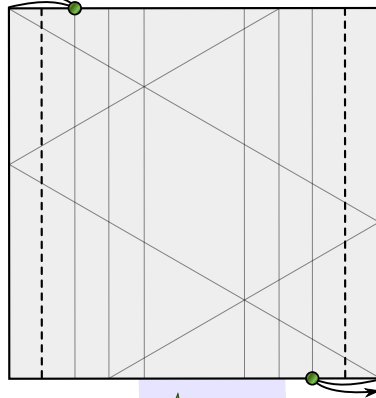
1



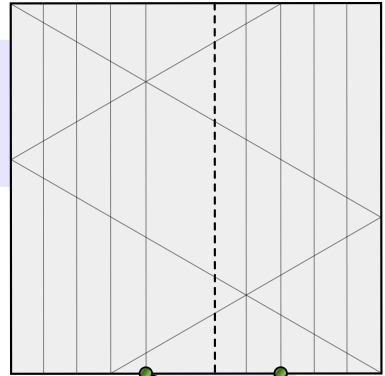
4



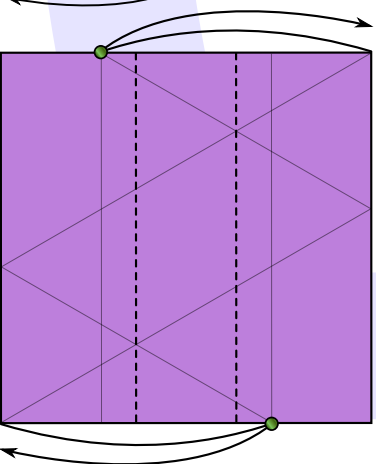
7



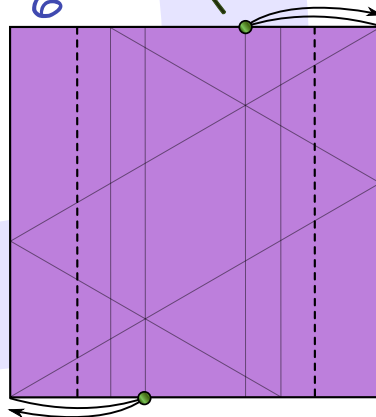
8



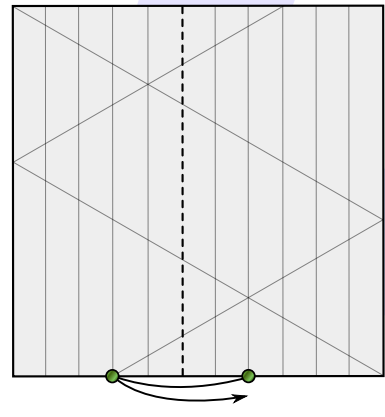
5

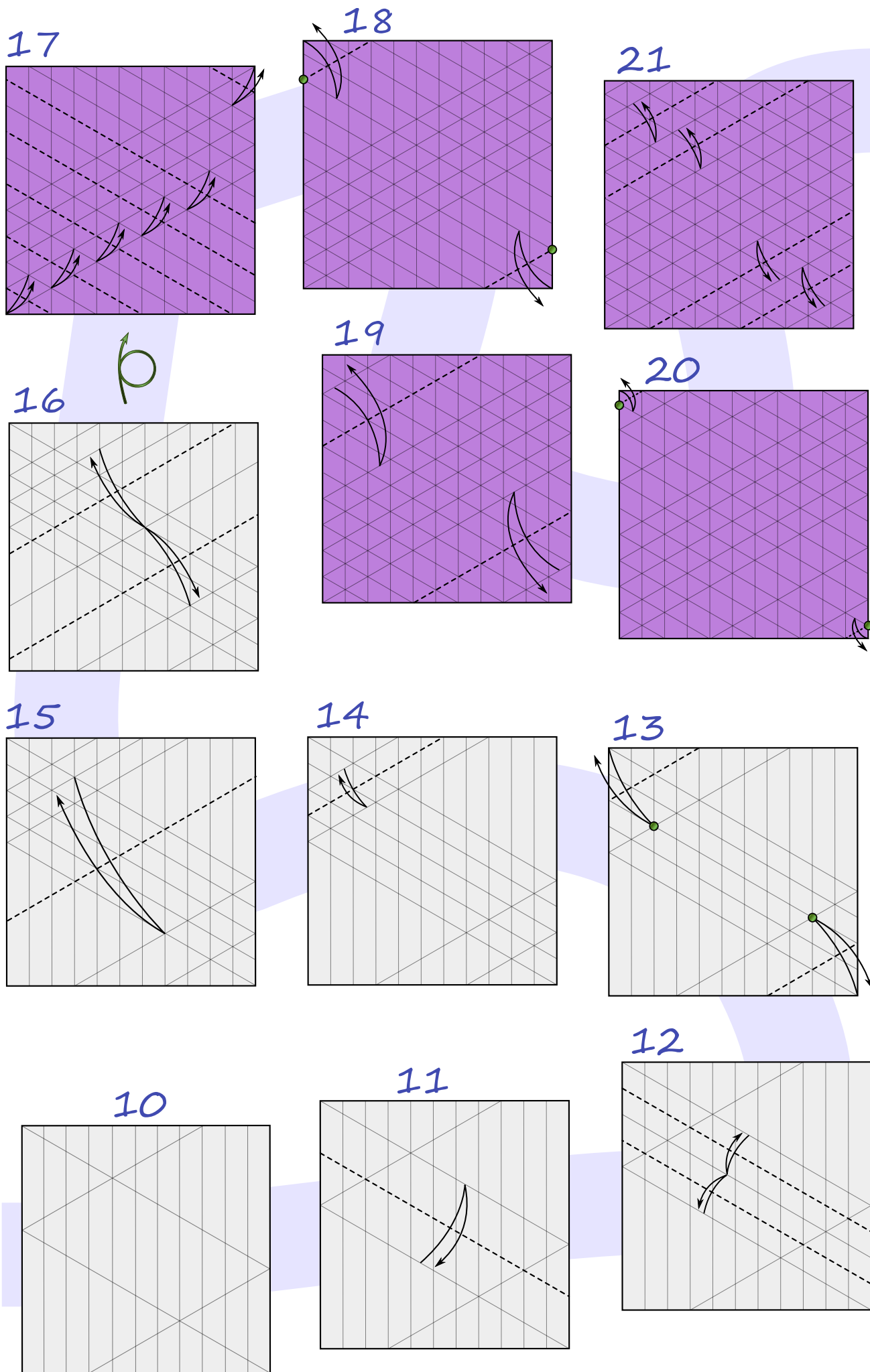


6

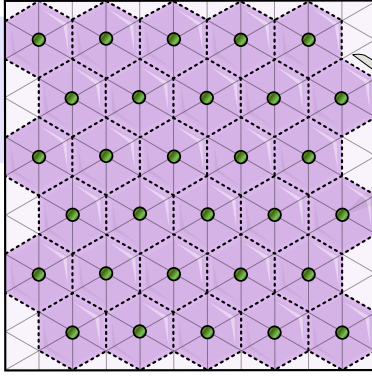


9



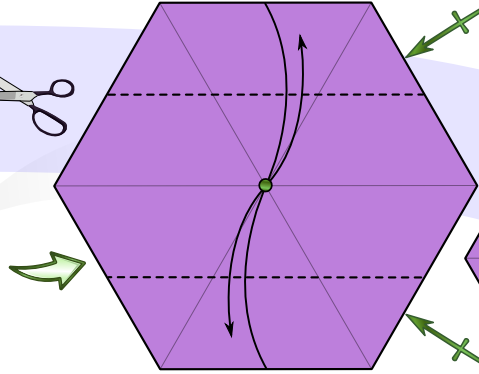


22

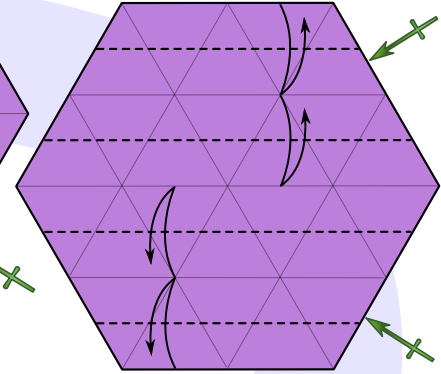


cut 30 hexagons

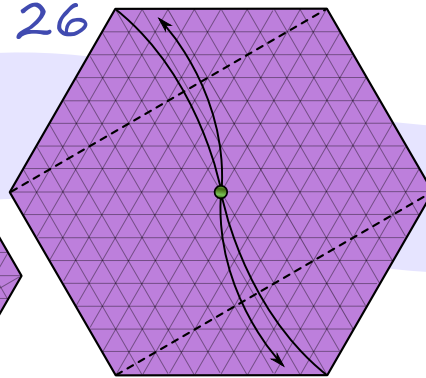
23



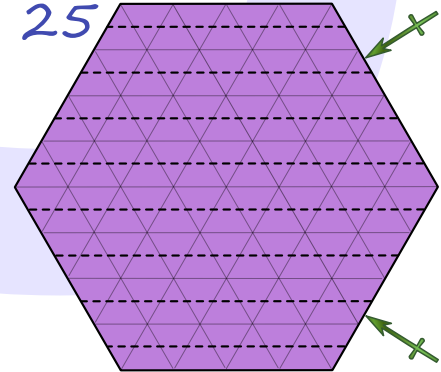
24



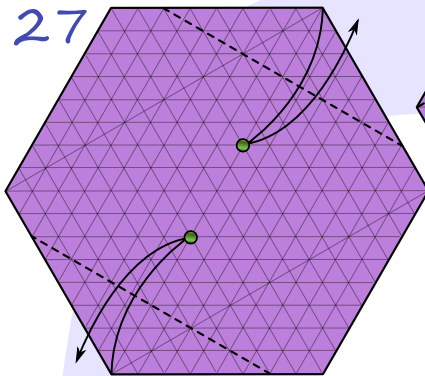
26



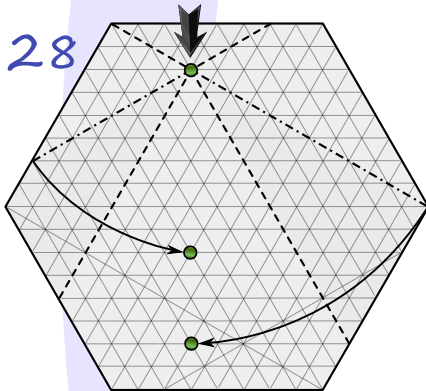
25



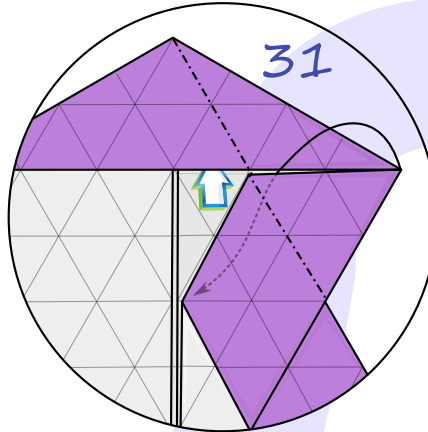
27



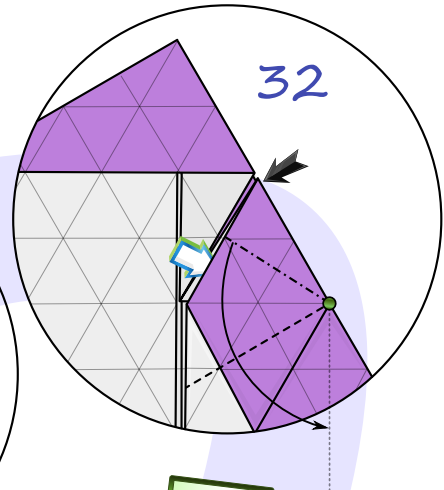
28



31

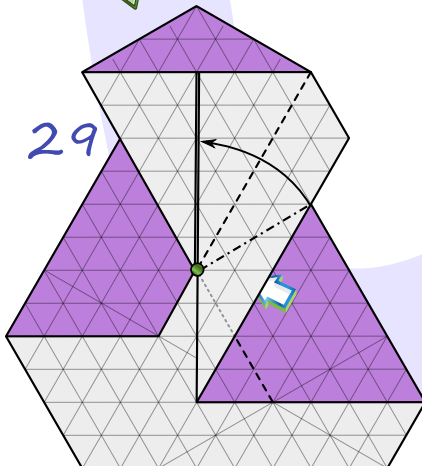


32

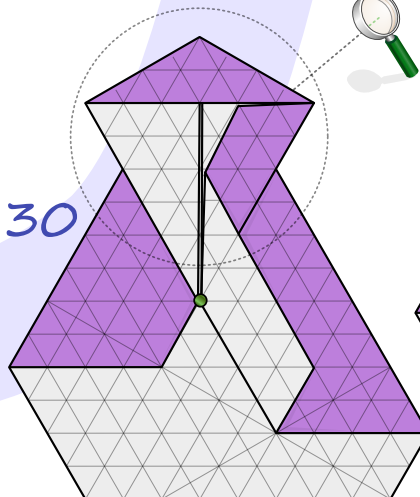


№ 30

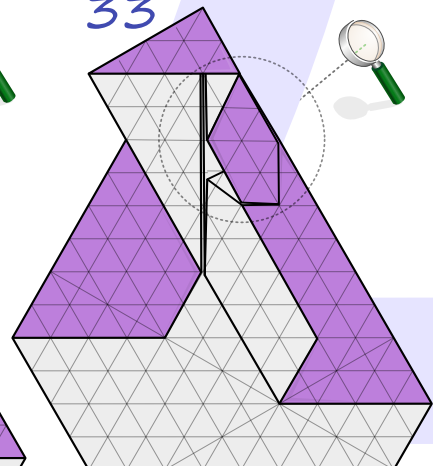
29

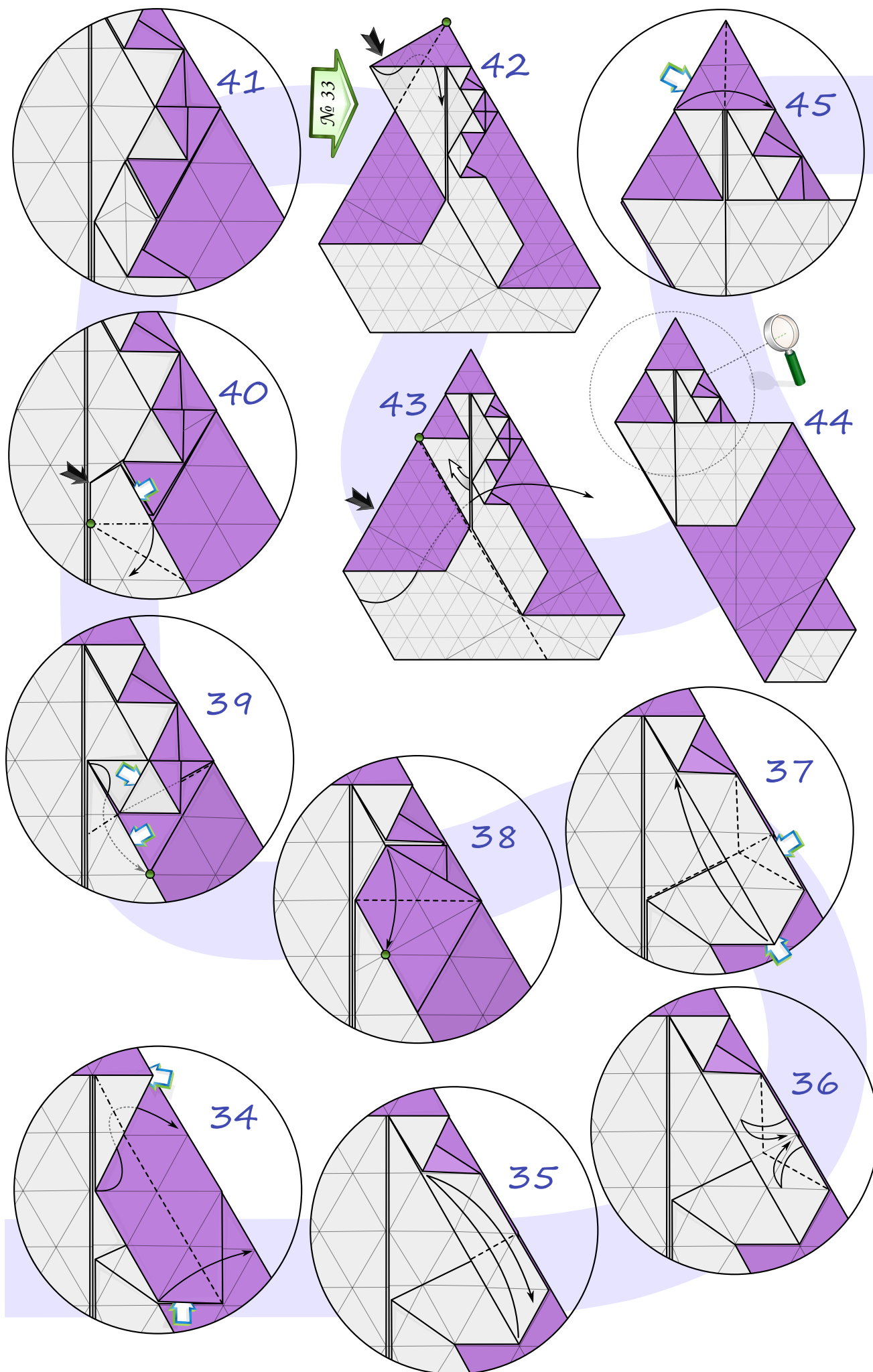


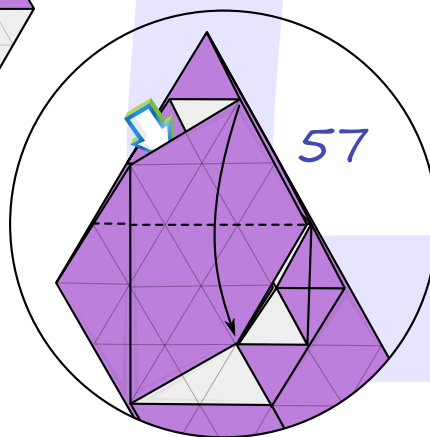
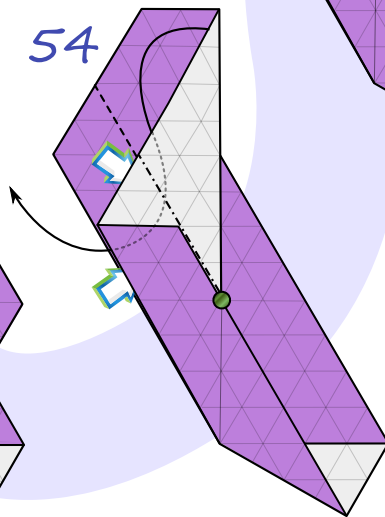
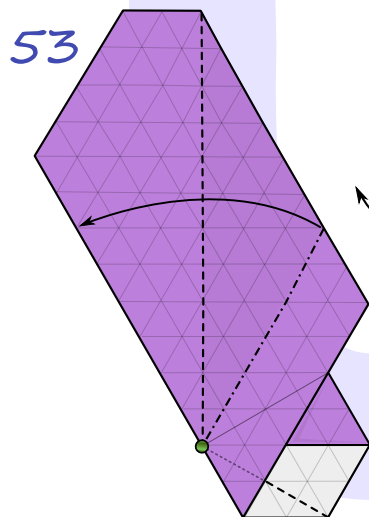
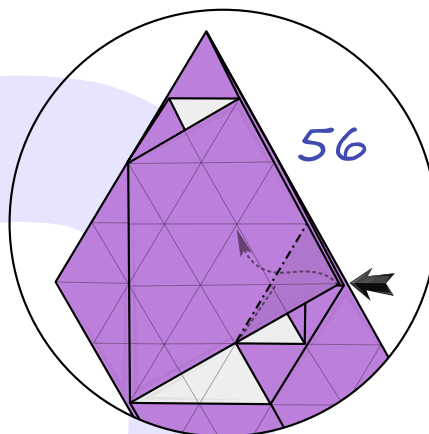
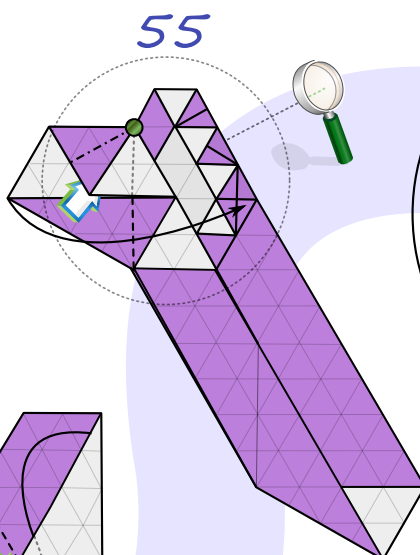
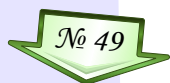
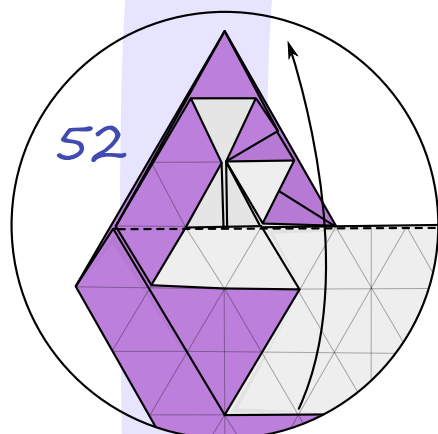
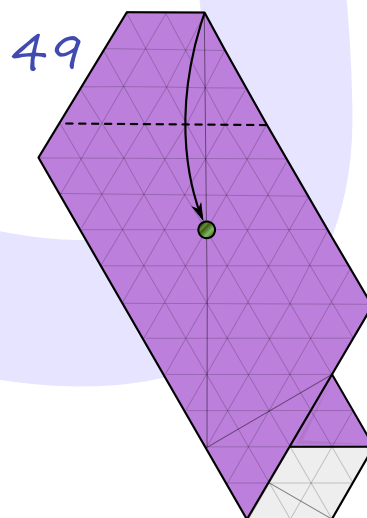
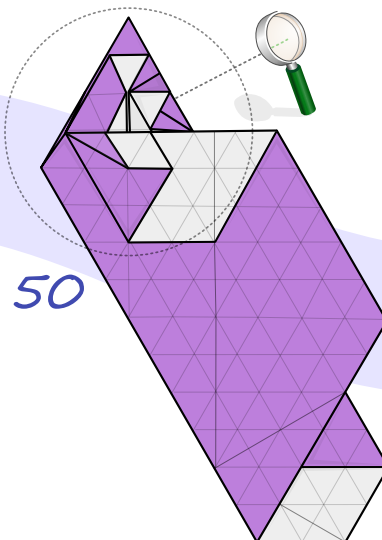
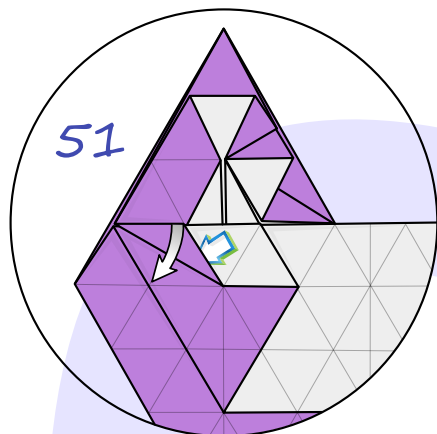
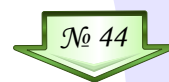
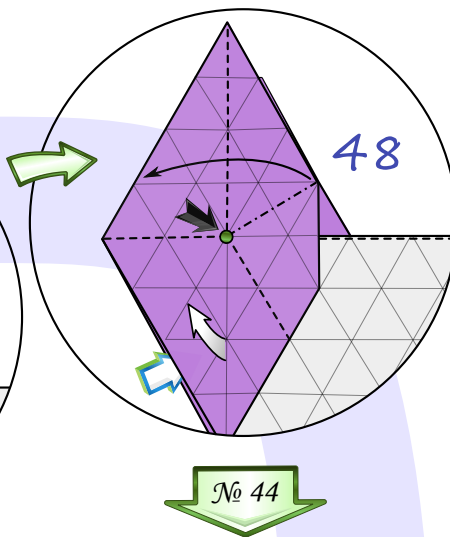
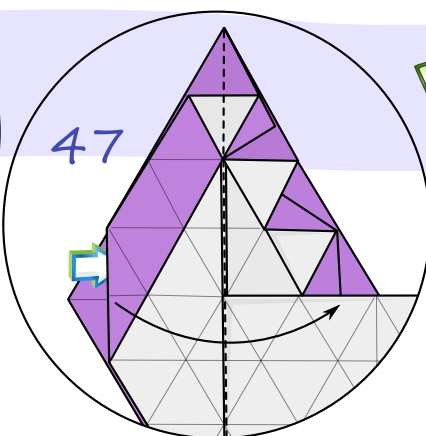
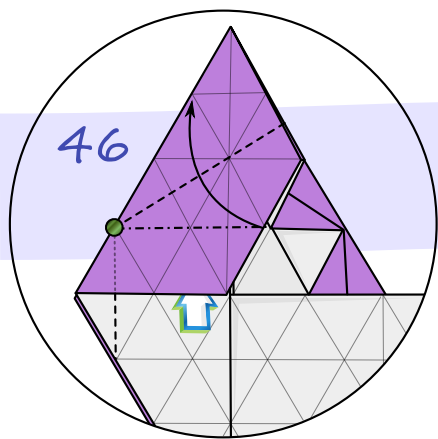
30



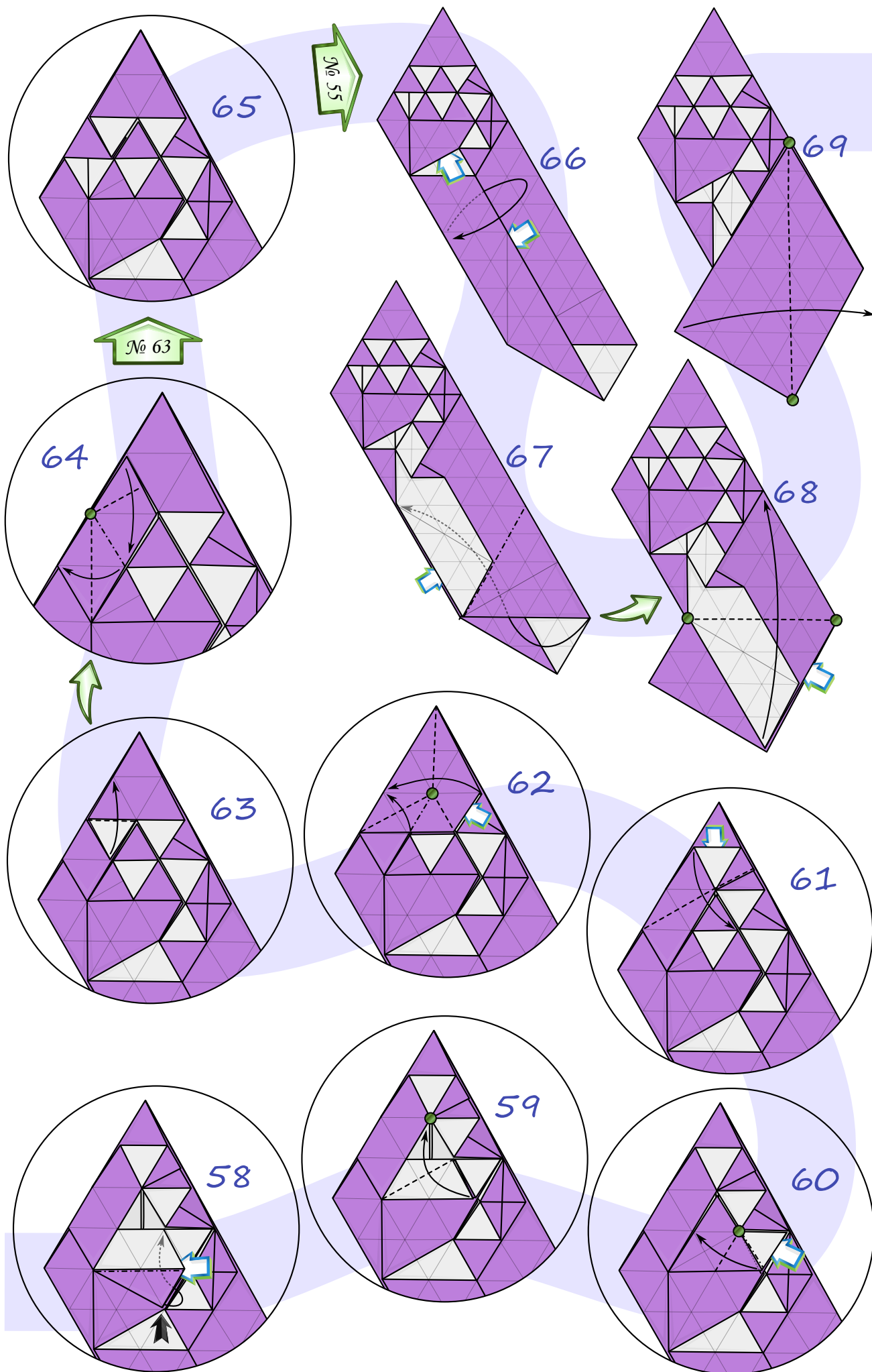
33

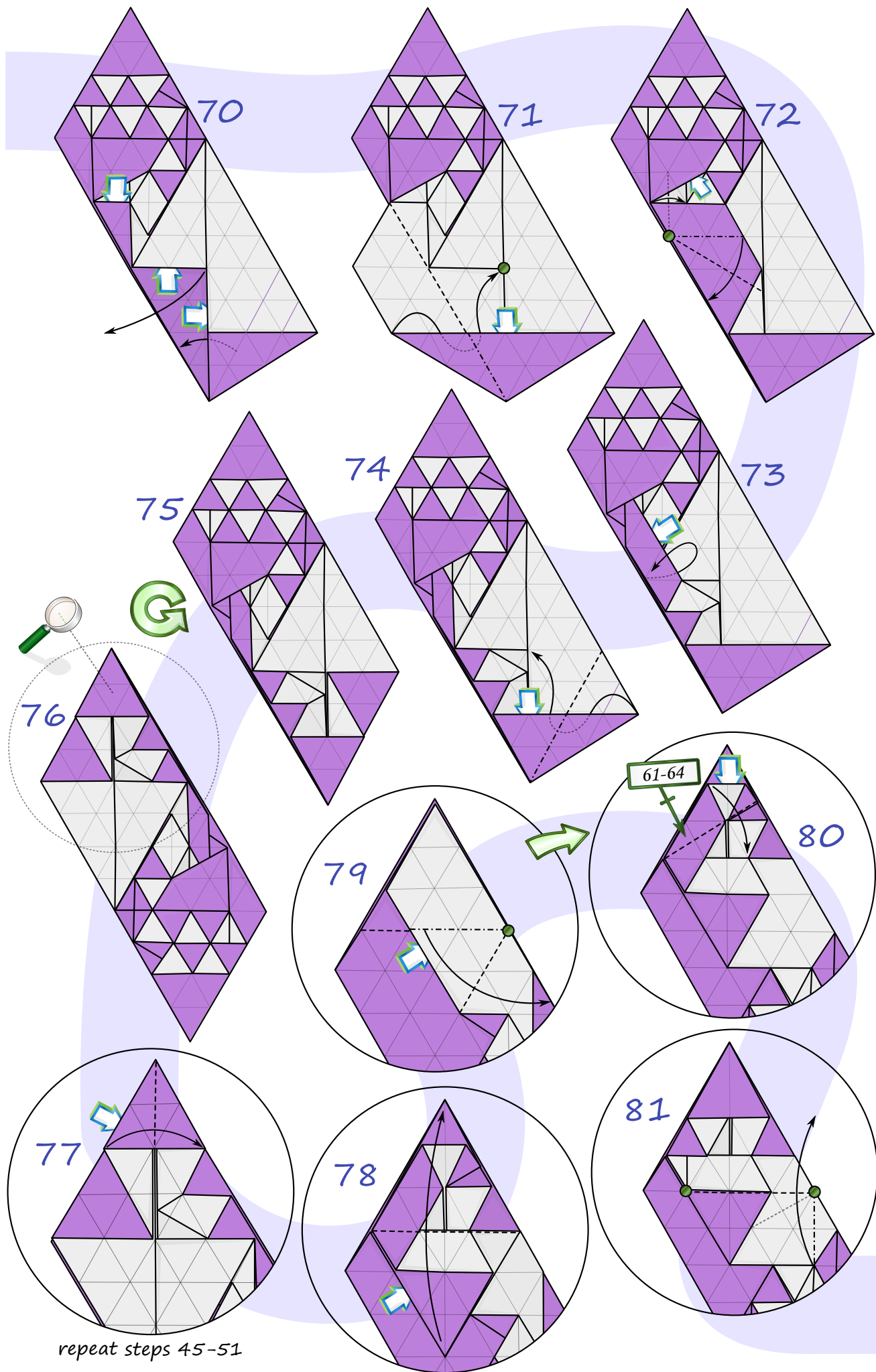




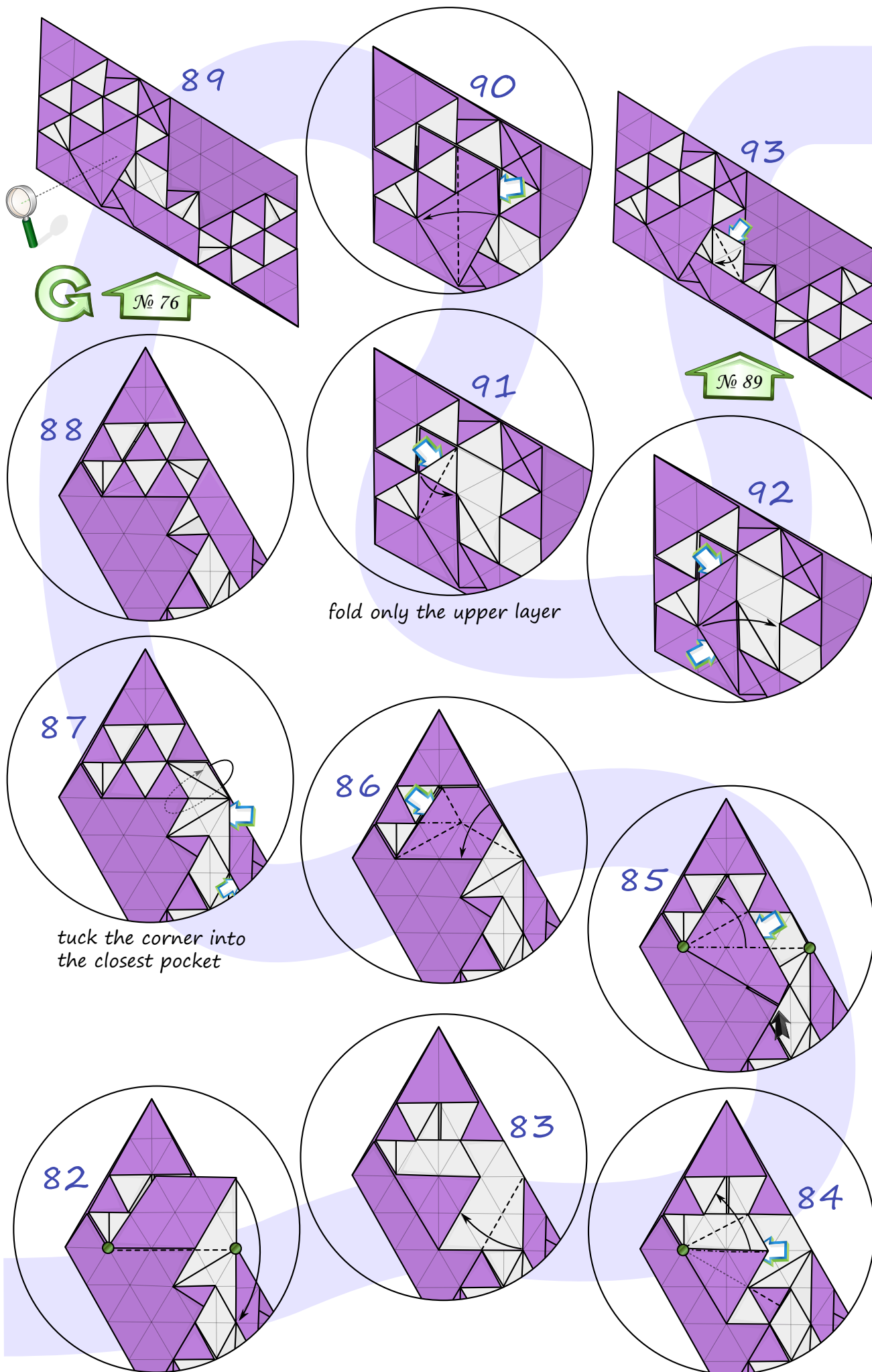


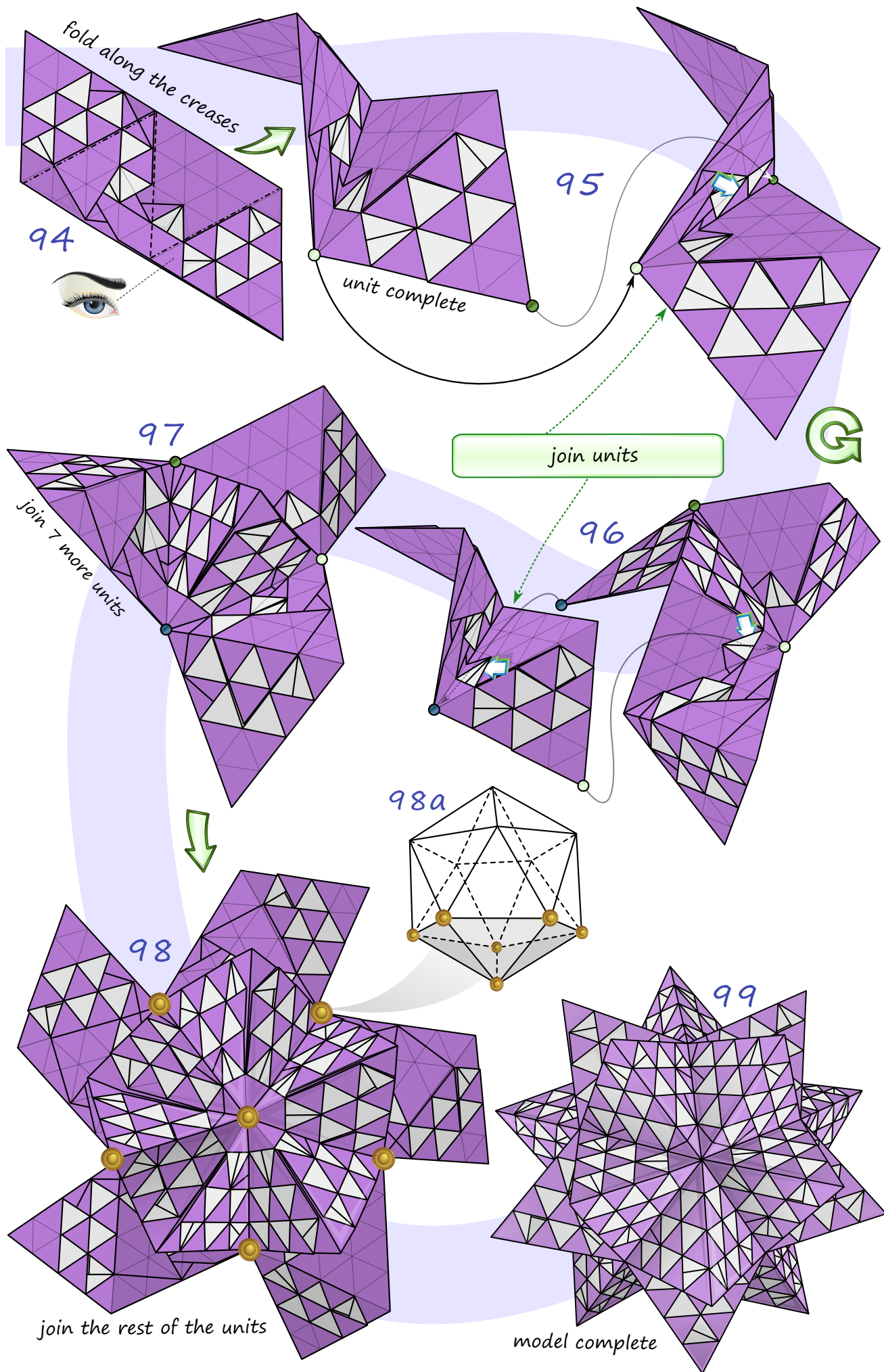




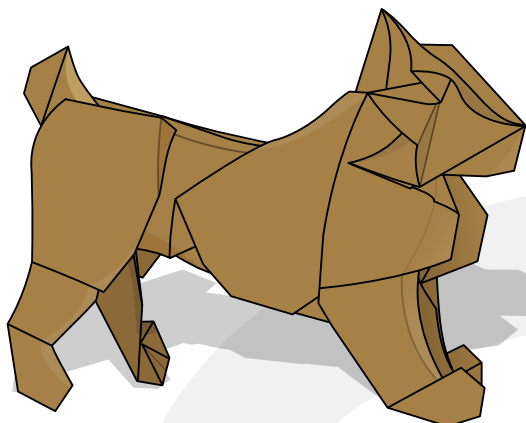








## Task №6



## Lynx v.1.0

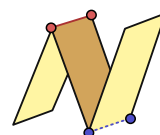
Anhelina Patsevich (Belarus)

Difficulty: \*\*\*\*\*

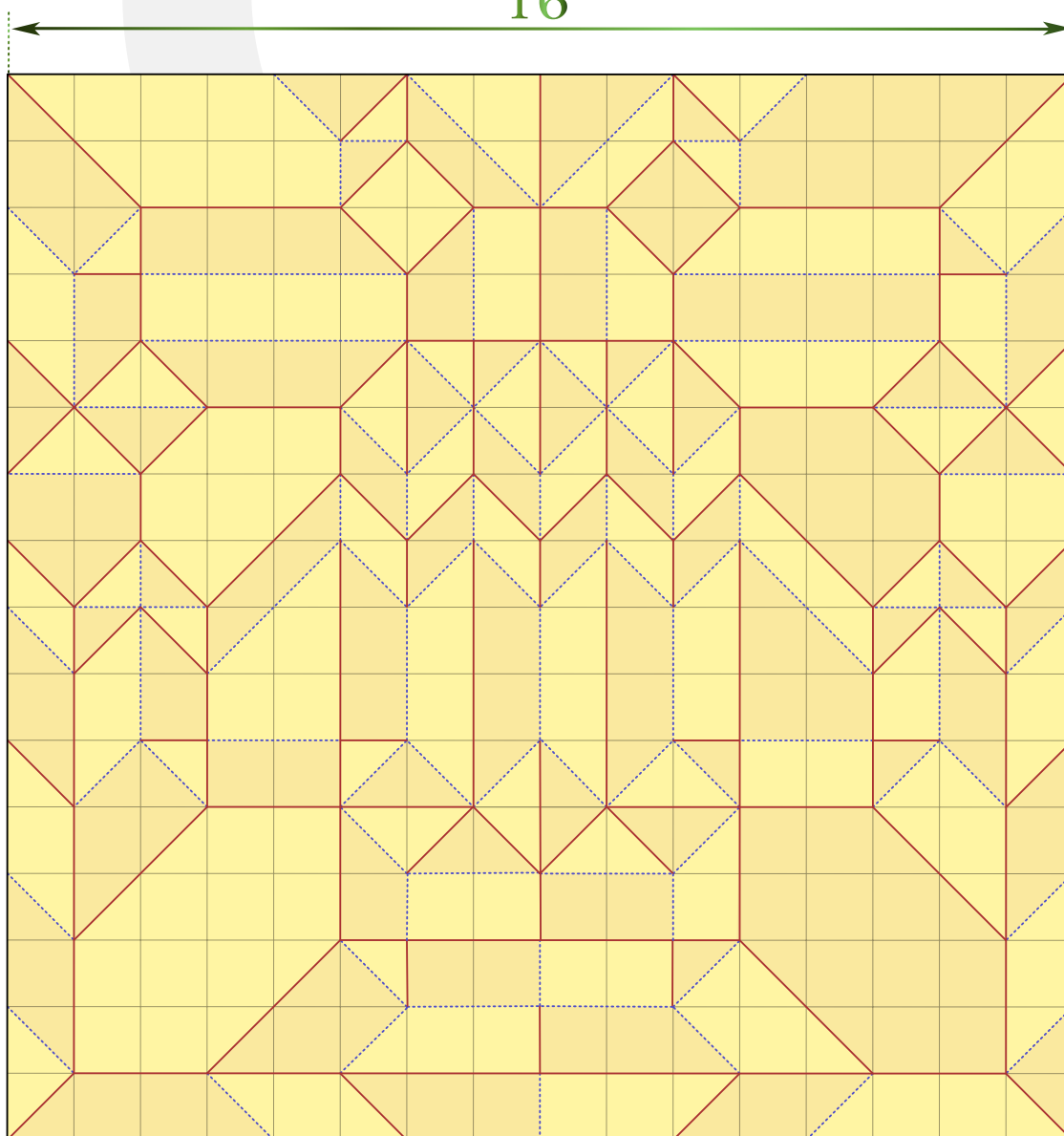
Paper: 40-50 g/m<sup>2</sup>

Size: 32-32 cm

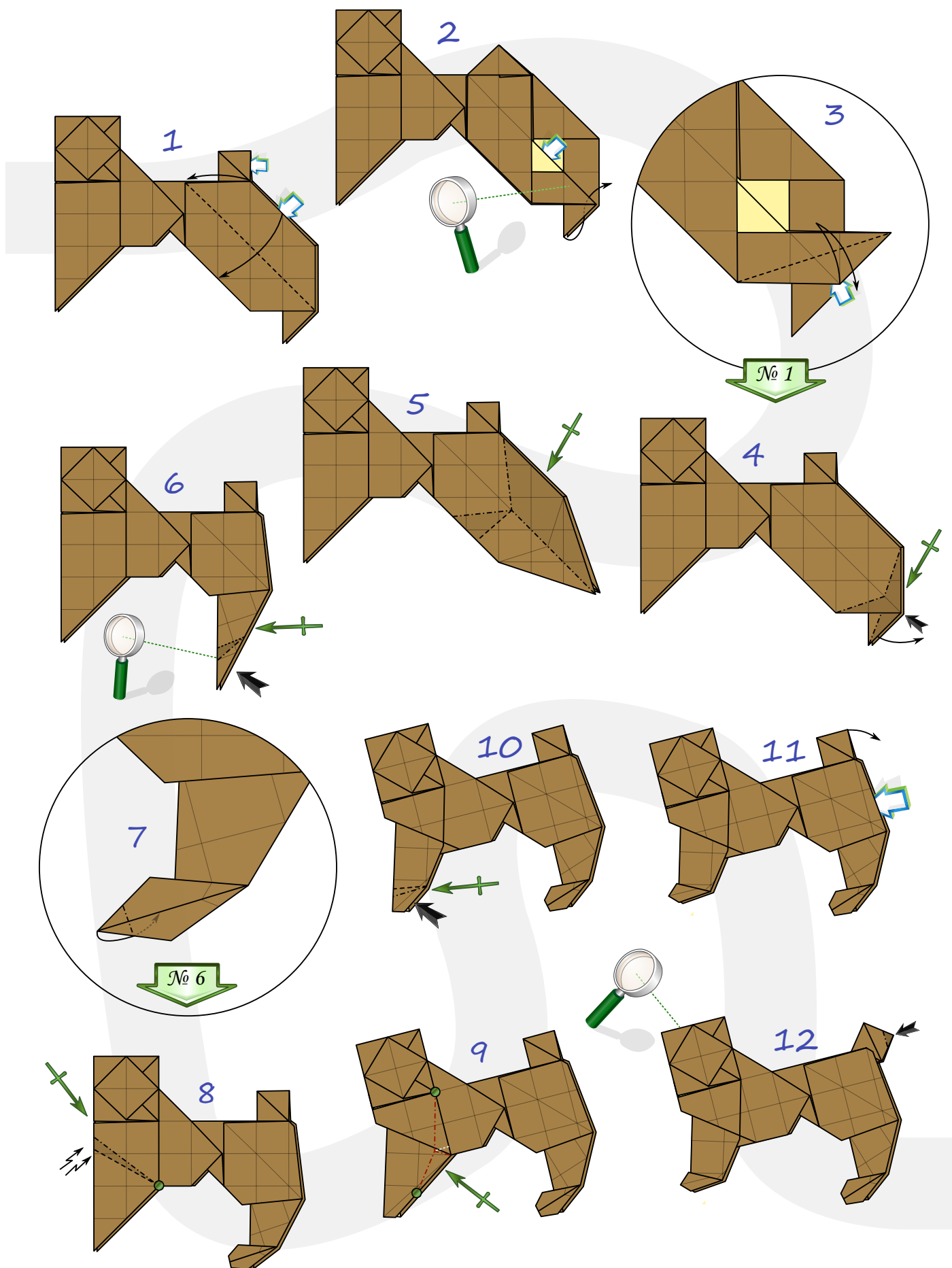
Max score: 5 points

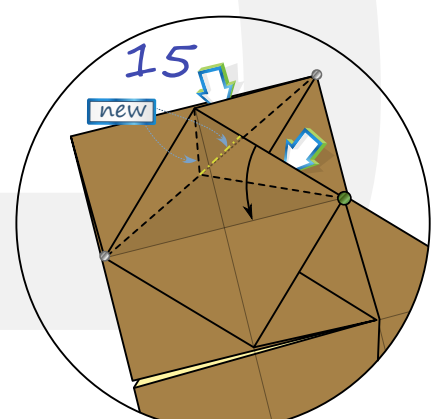
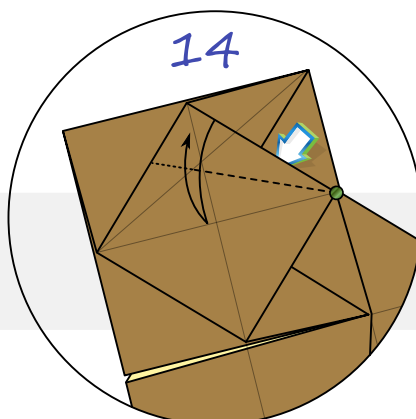
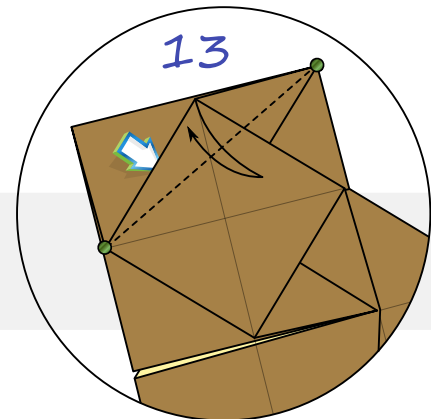
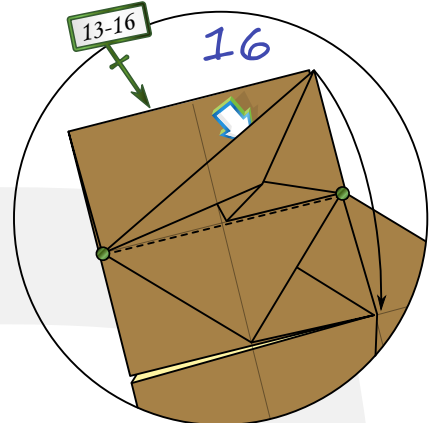
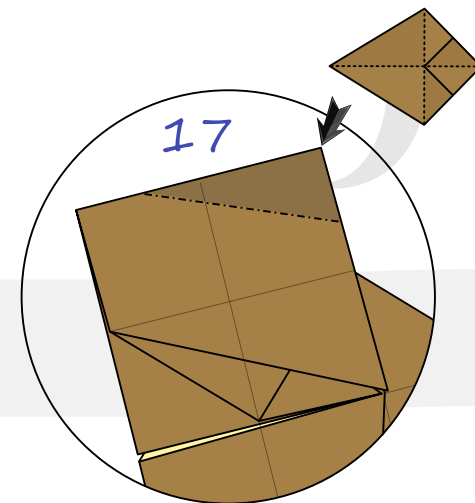
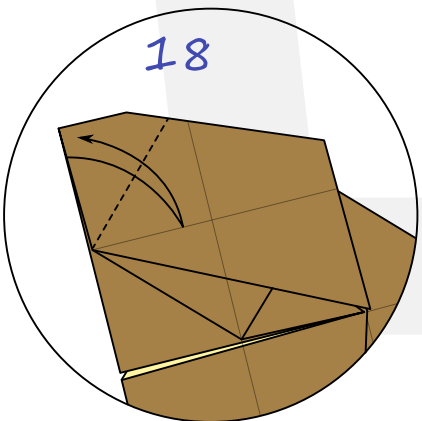
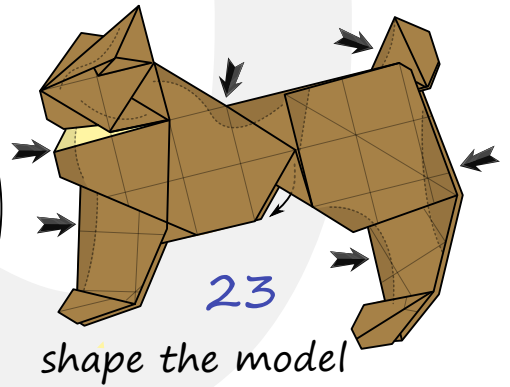
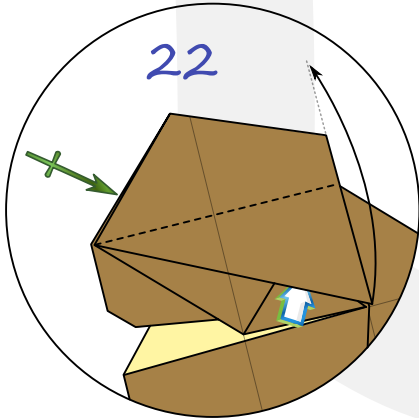
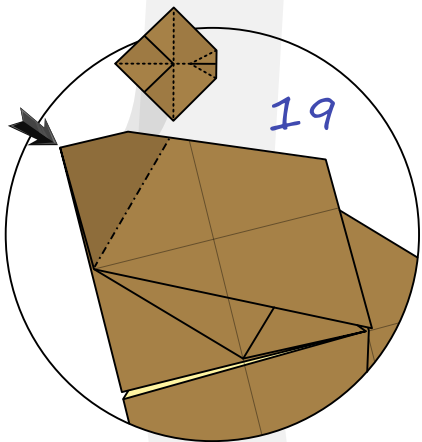
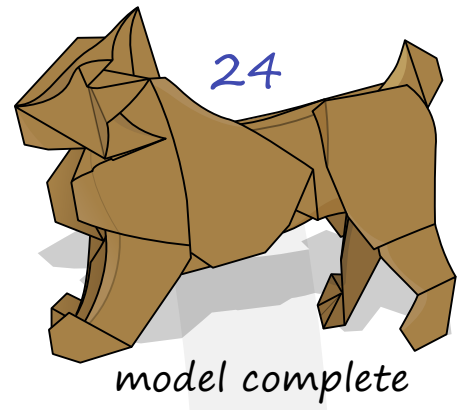
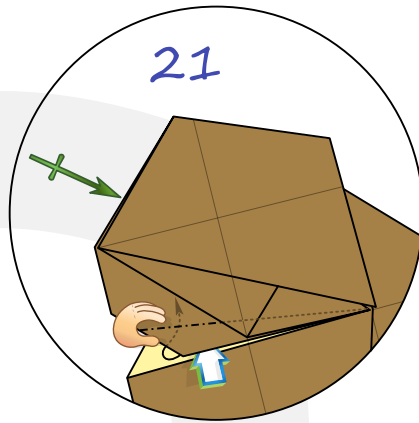
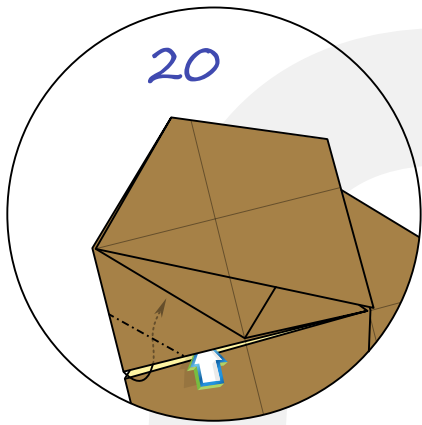


16



Crease Pattern







# Kaleidoscope Recursion

Edward Mistretta (USA)

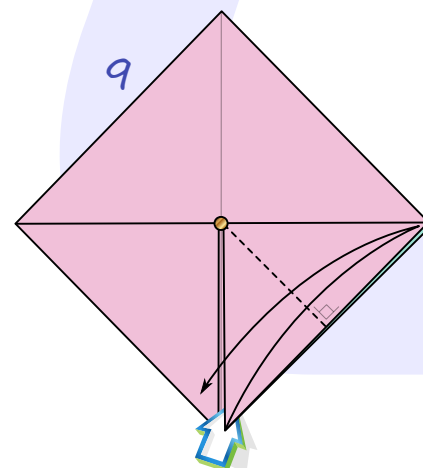
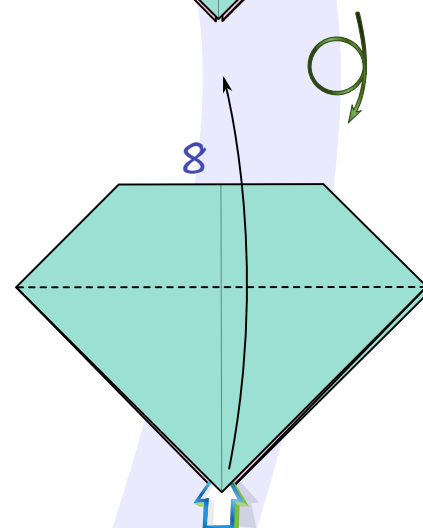
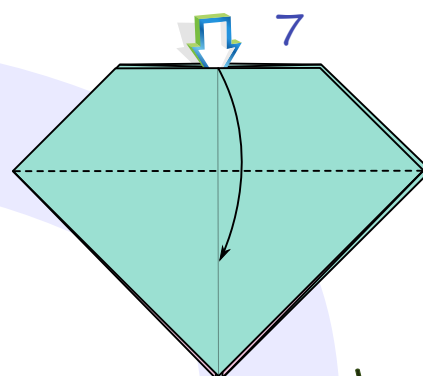
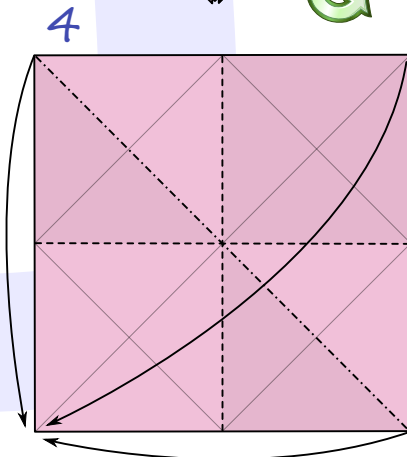
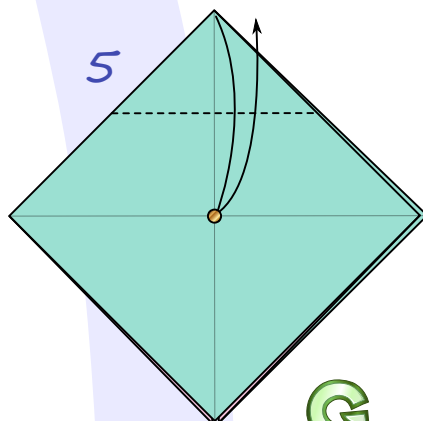
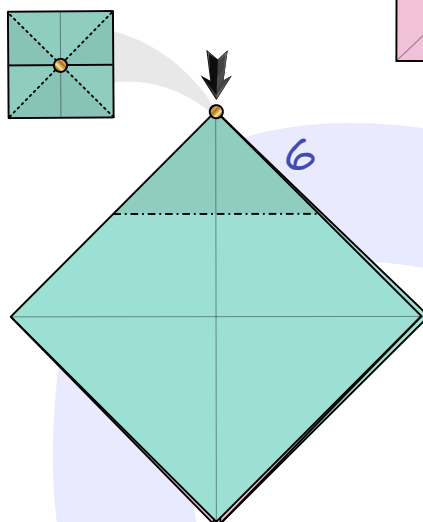
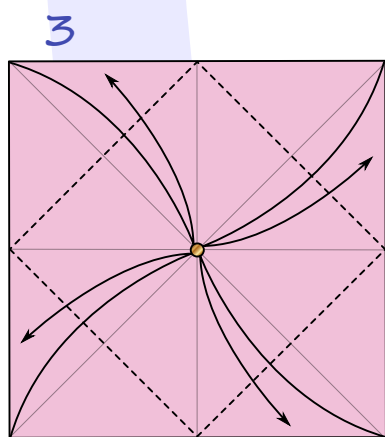
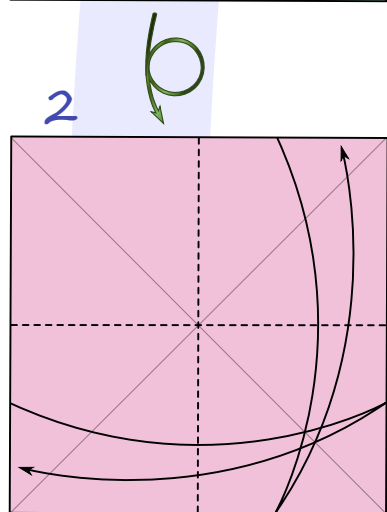
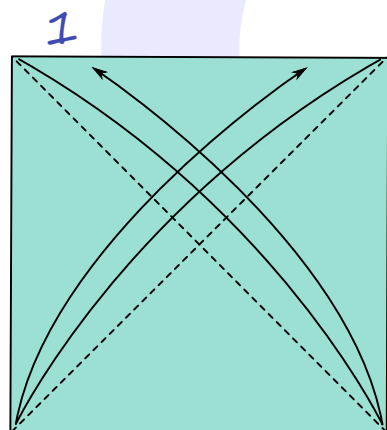
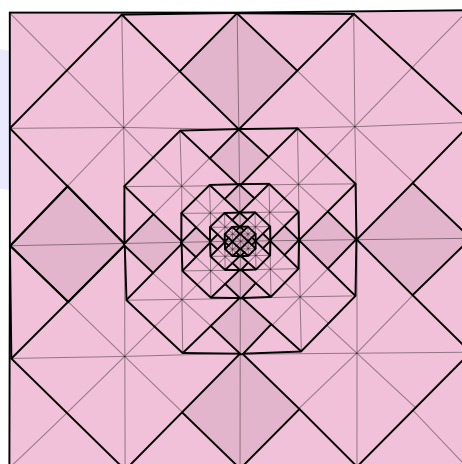
Difficulty: \*\*\*\*\*

Paper: 50-60 g/m<sup>2</sup>

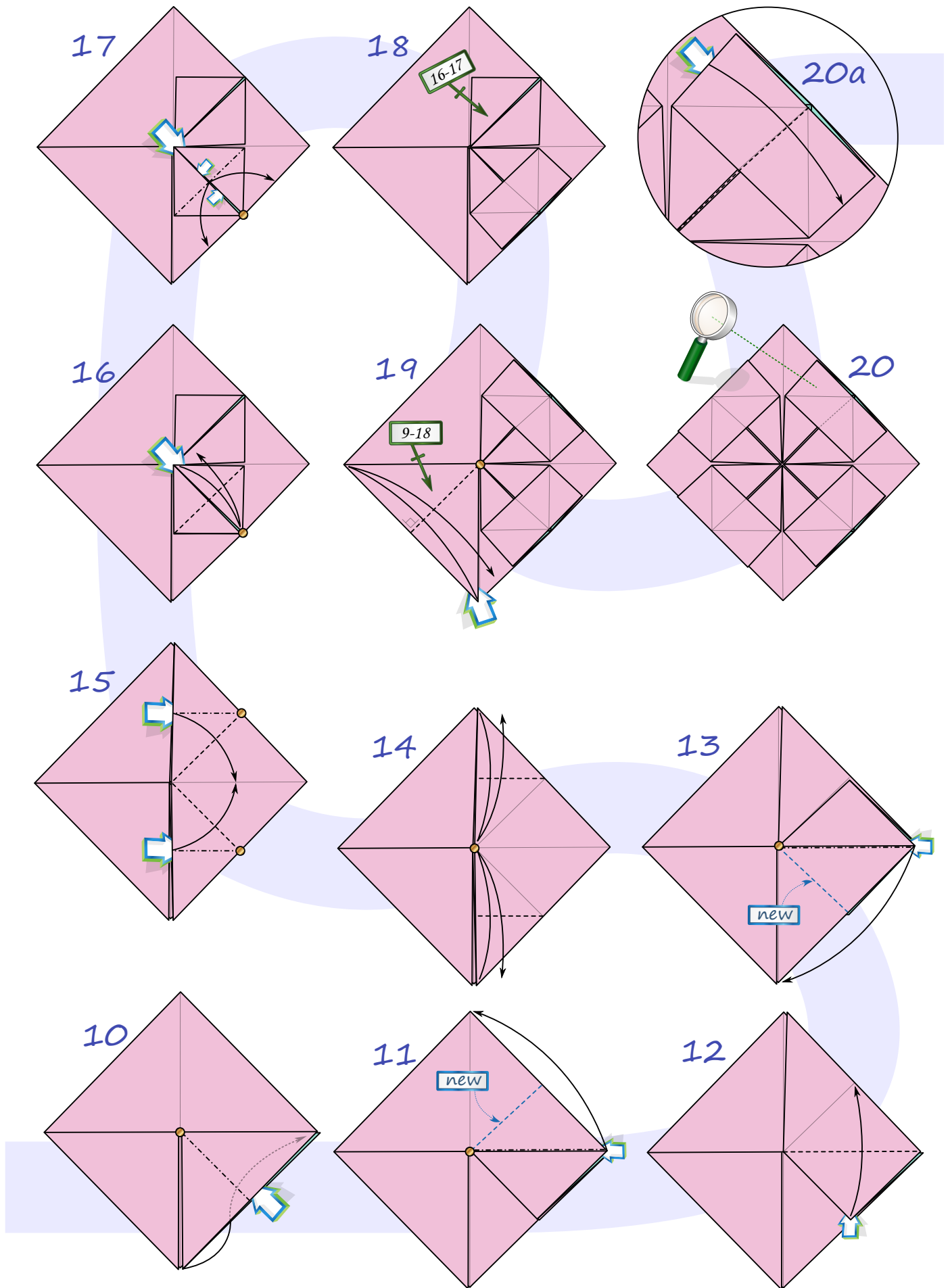
Paper size: 30-30 cm

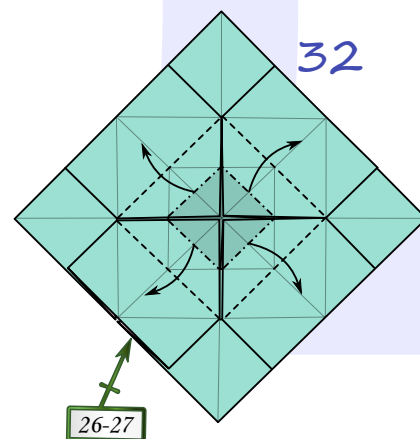
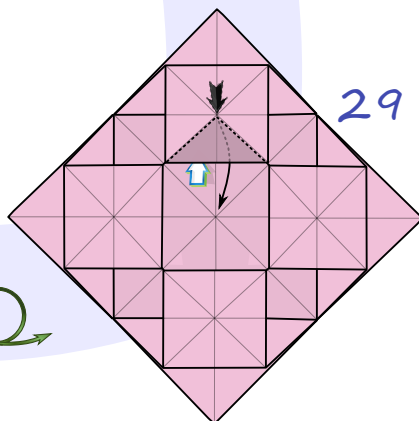
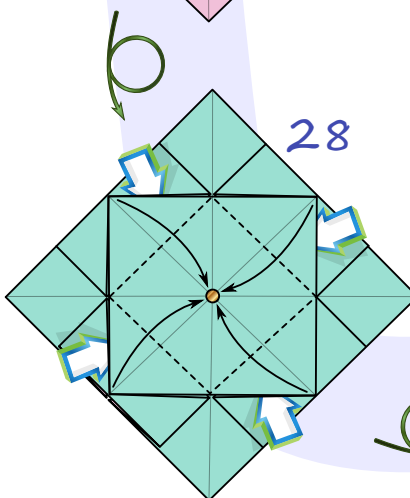
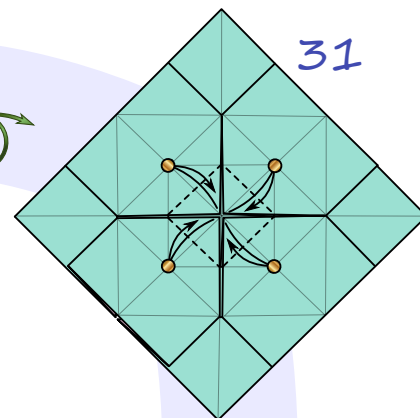
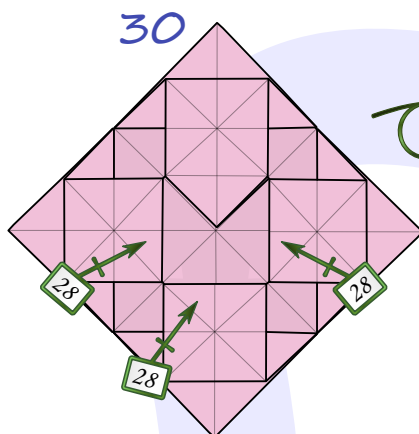
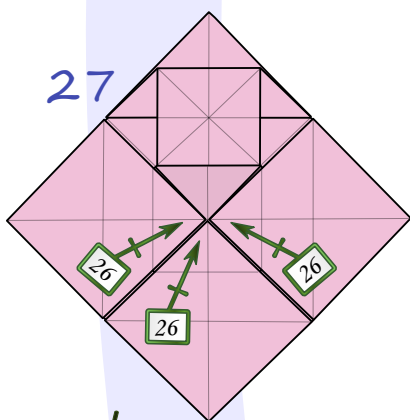
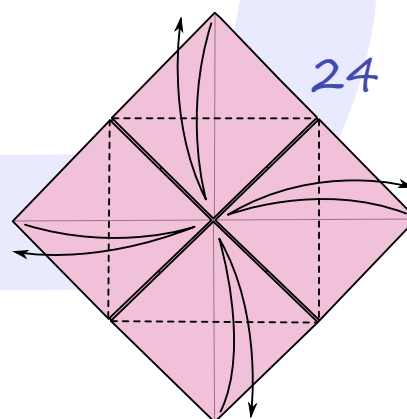
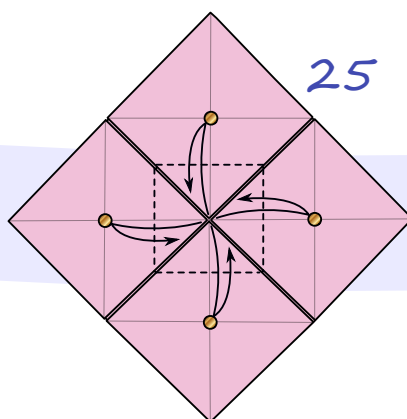
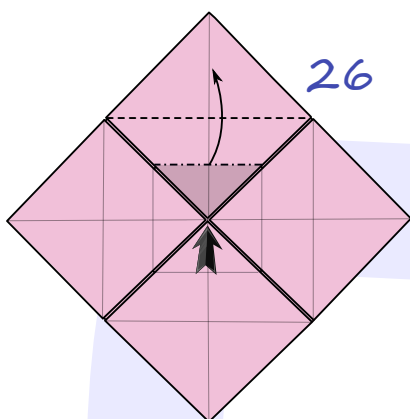
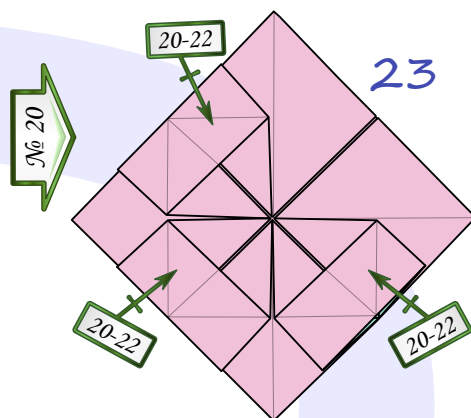
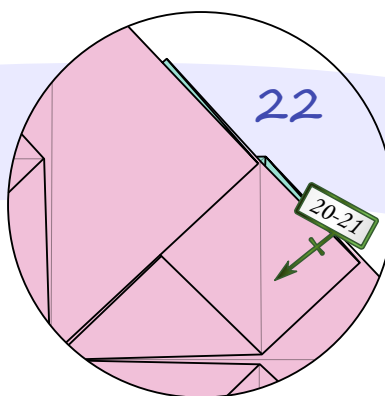
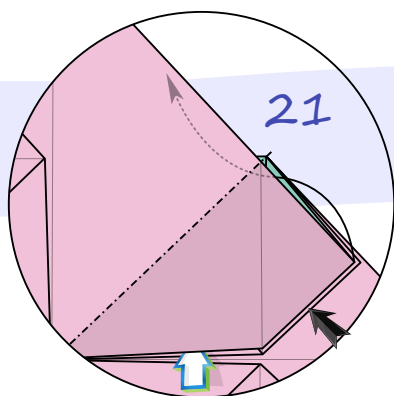
Max score: 5 points

## Task №7



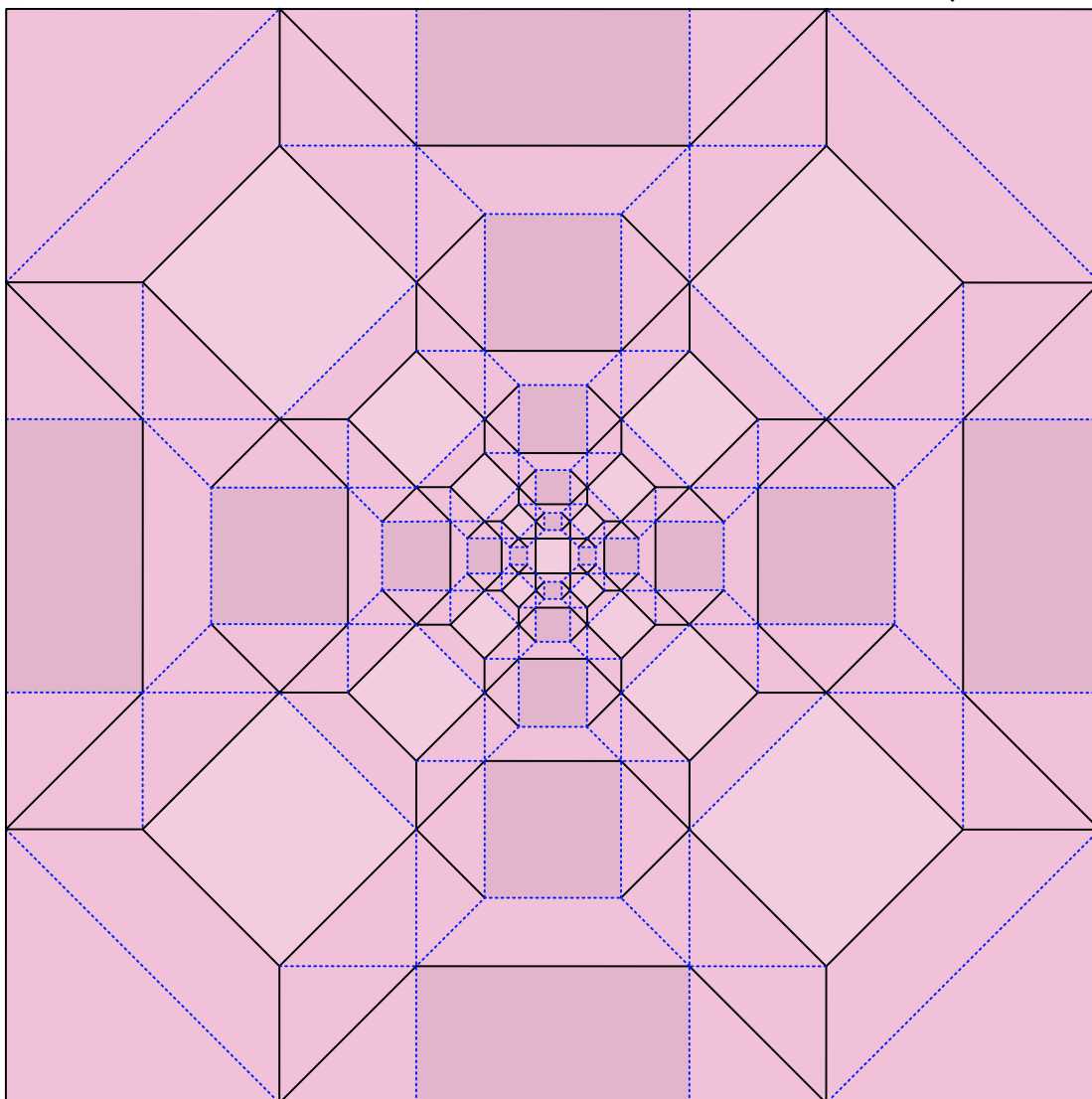






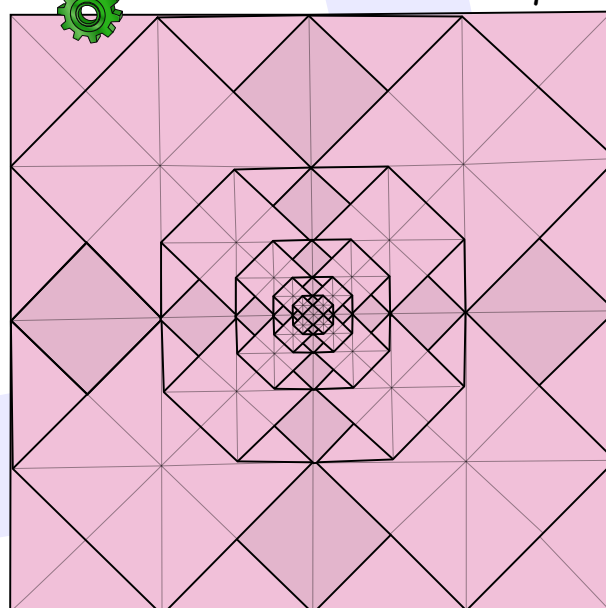
34a

crease pattern

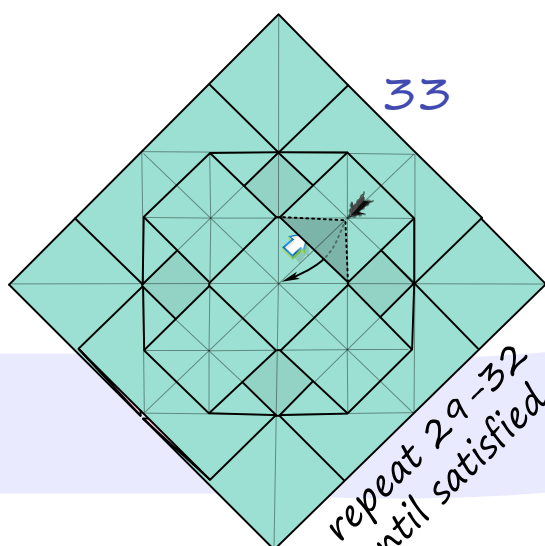


34

model complete



33



repeat 29-32  
until satisfied



# It Is Wednesday

Arseni Kazhamiakin (Belarus)

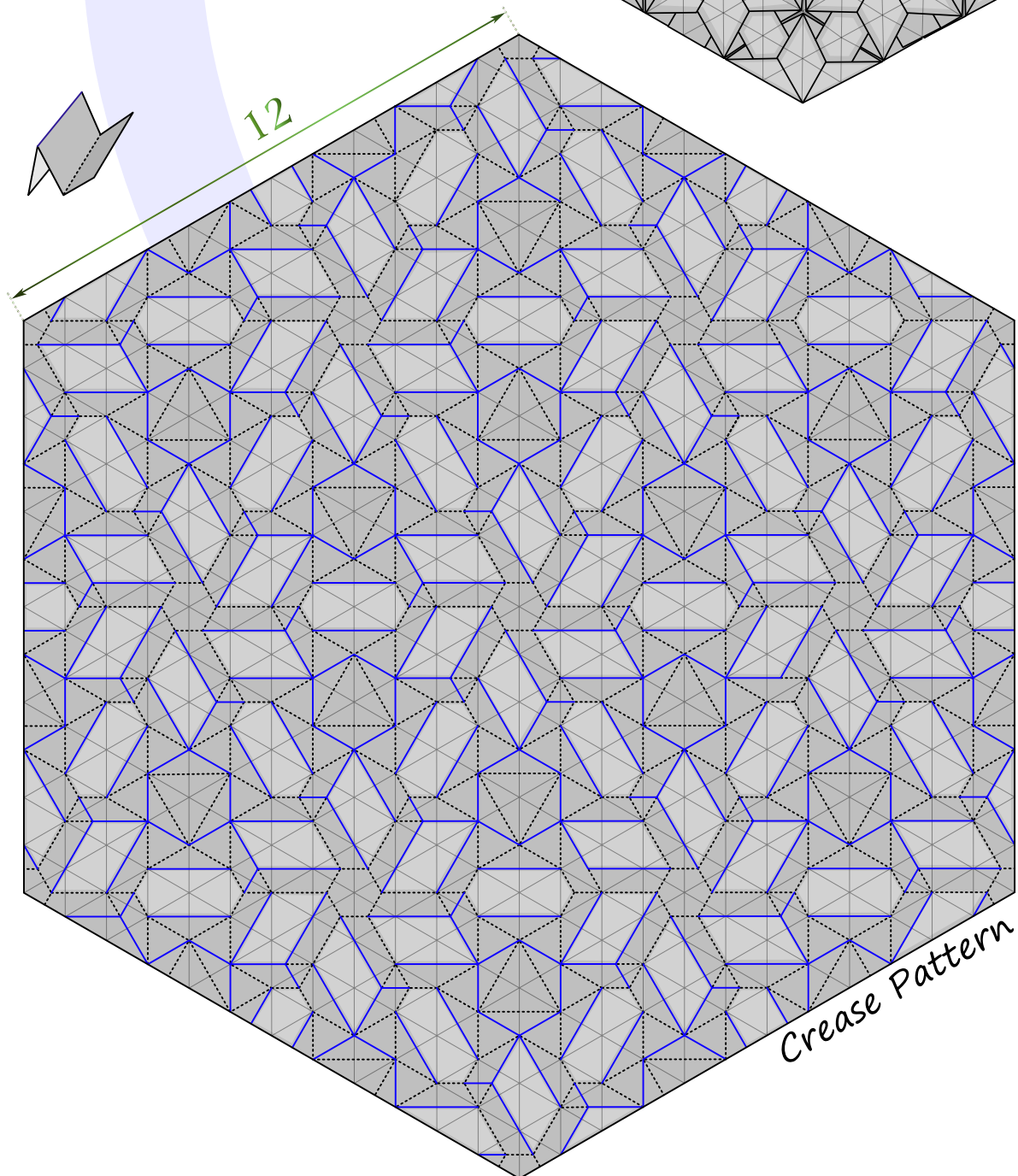
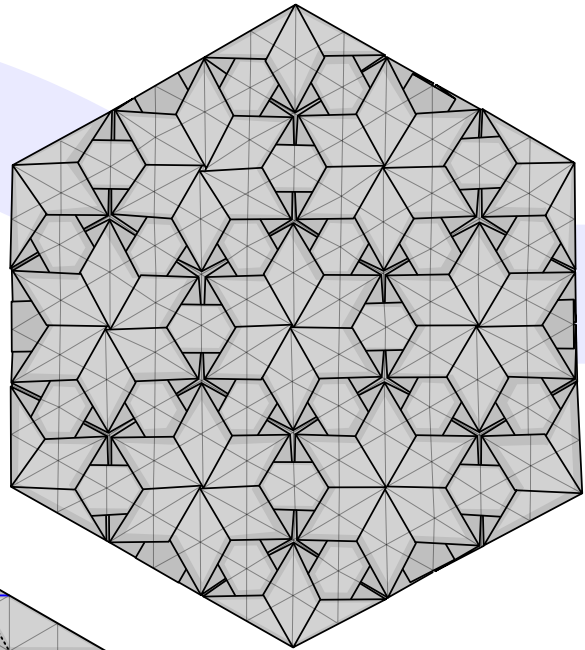
Difficulty: \*\*\*\*\*

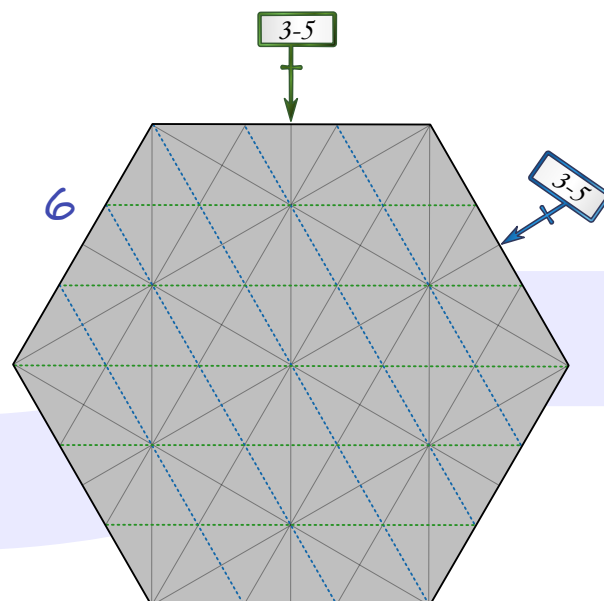
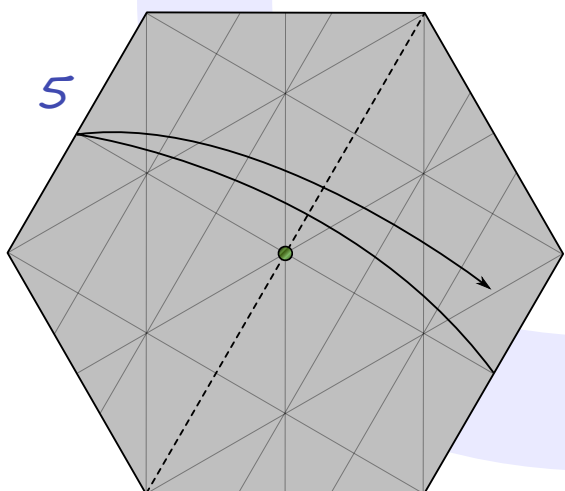
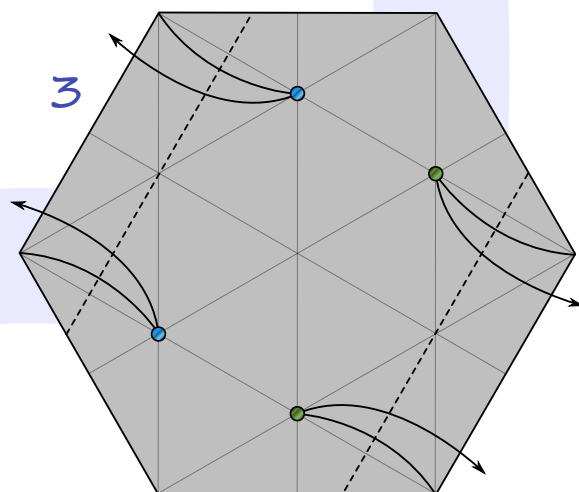
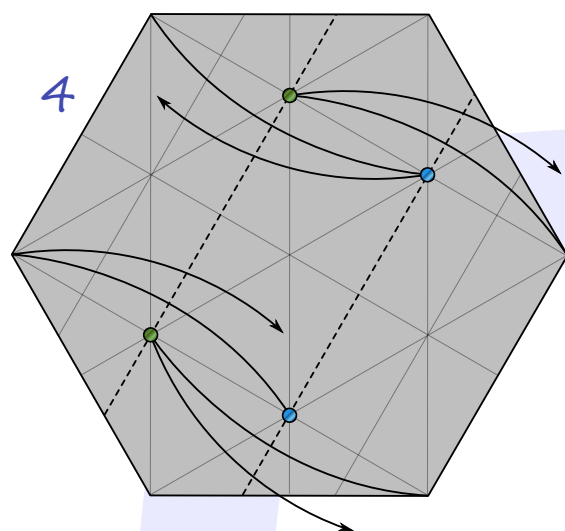
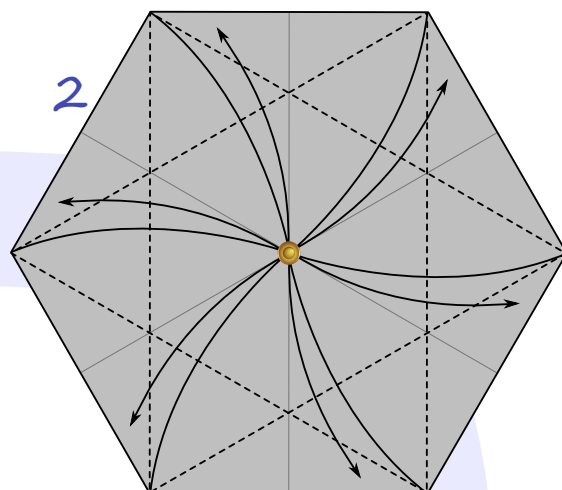
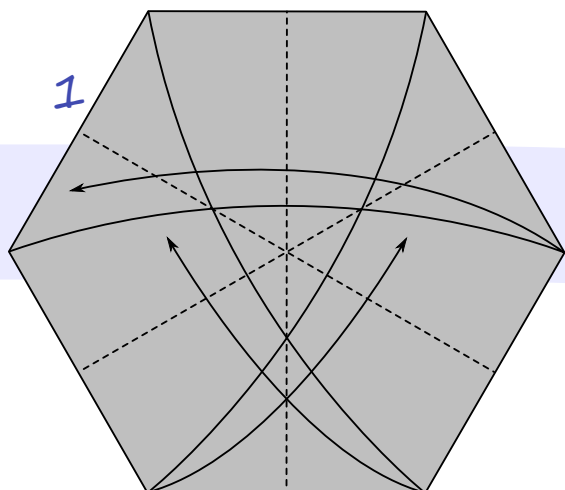
Paper: 50-60 g/m<sup>2</sup>

Hexagon size: 20 cm

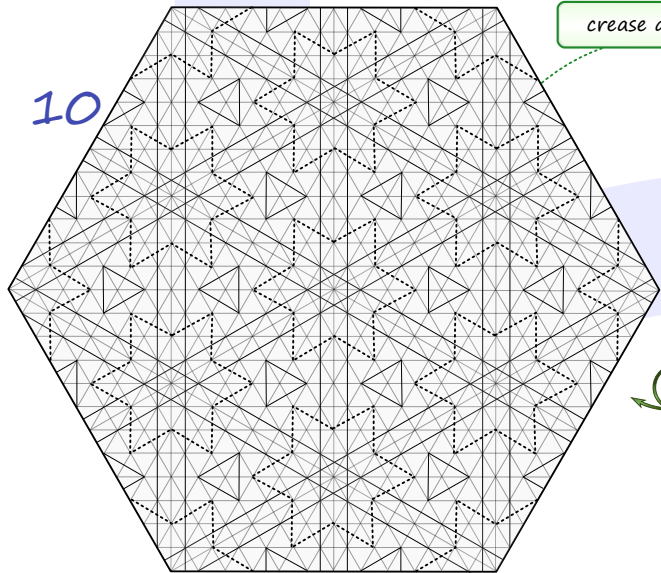
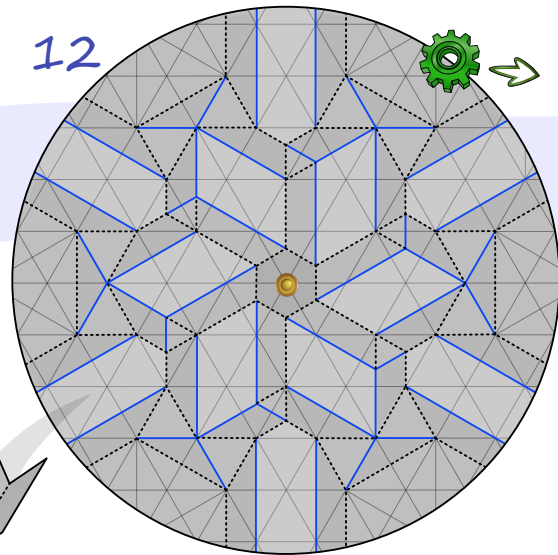
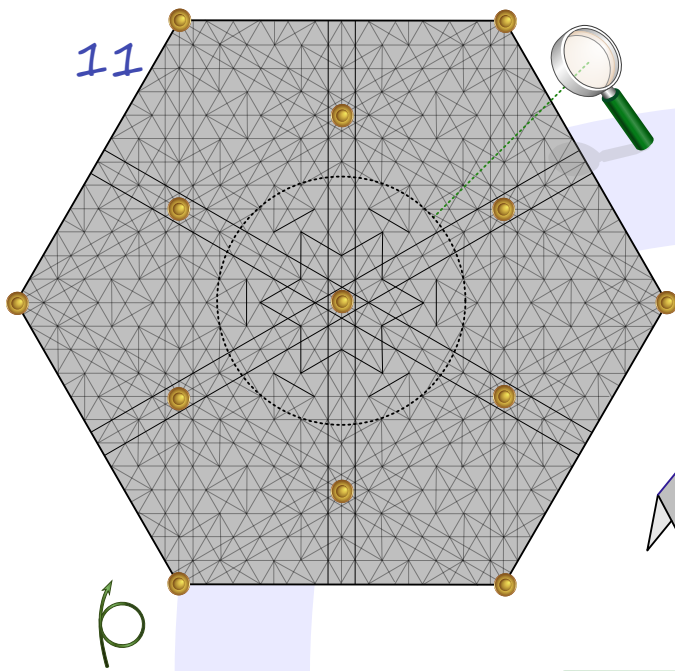
Final size: 10 cm

Max score: 7 points

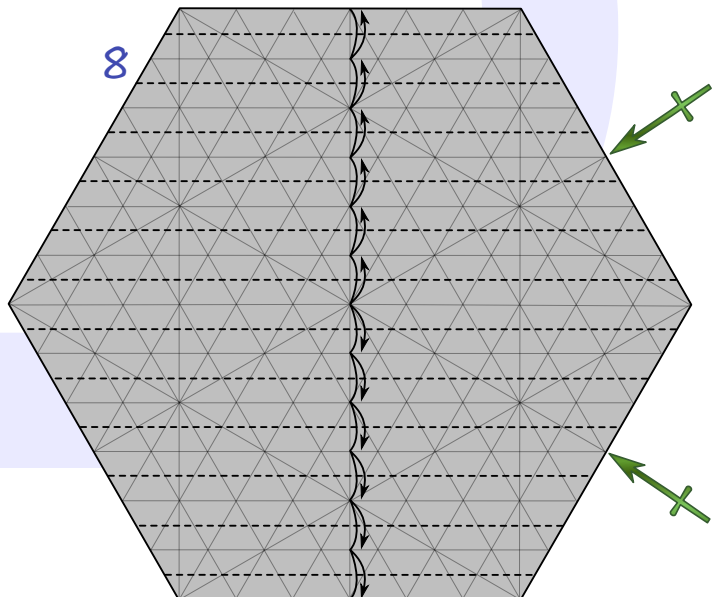
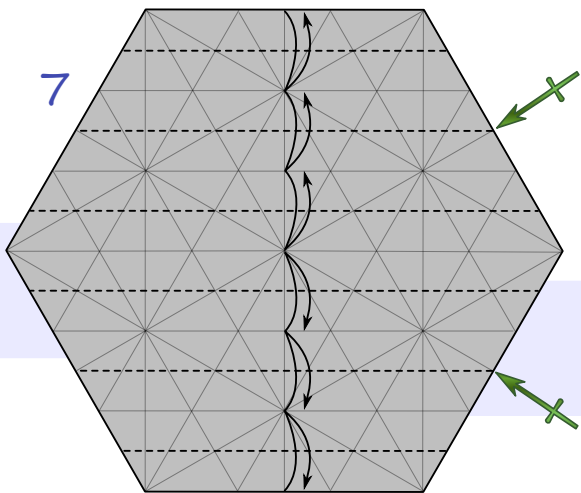
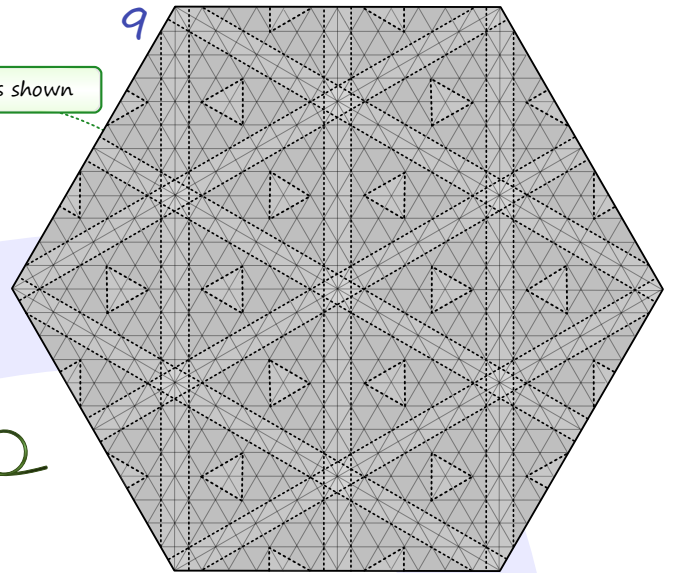






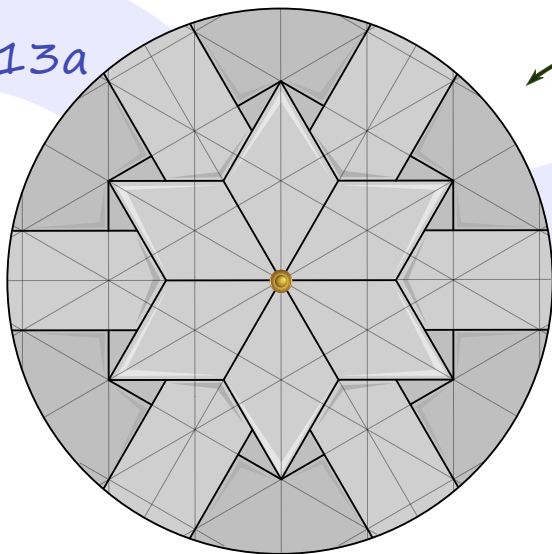


crease as shown

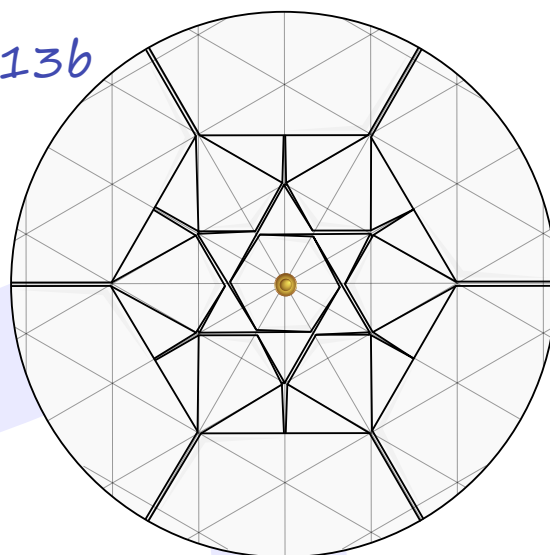




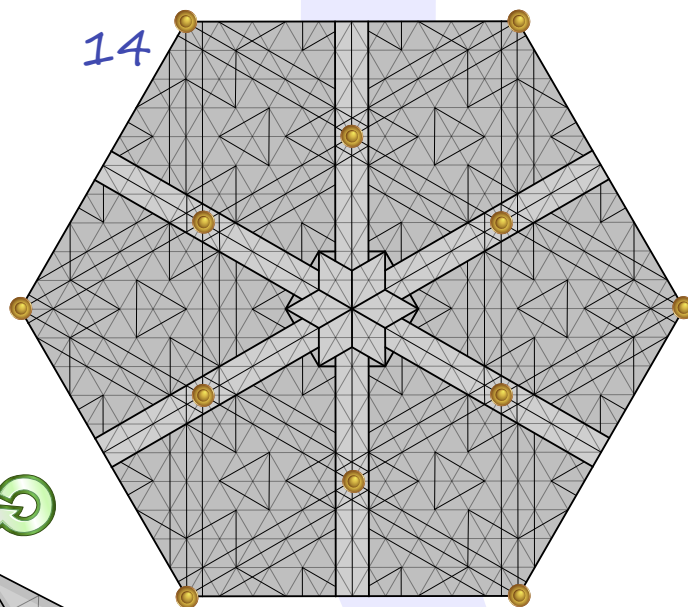
13a



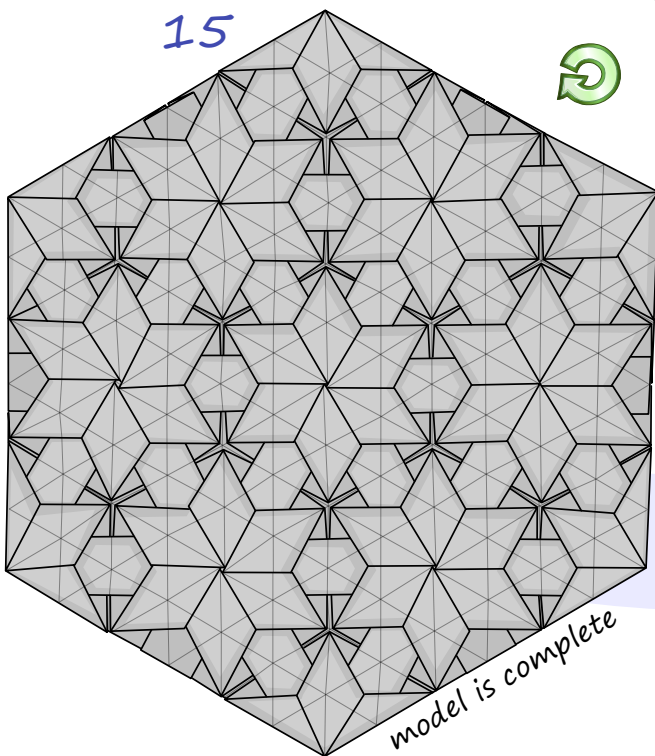
13b



14



15



repeat steps 11-13 on  
all the marked elements  
of the model



model is complete

## Task №9

# Sisyphus Tessellation

Peter Keller (Germany)

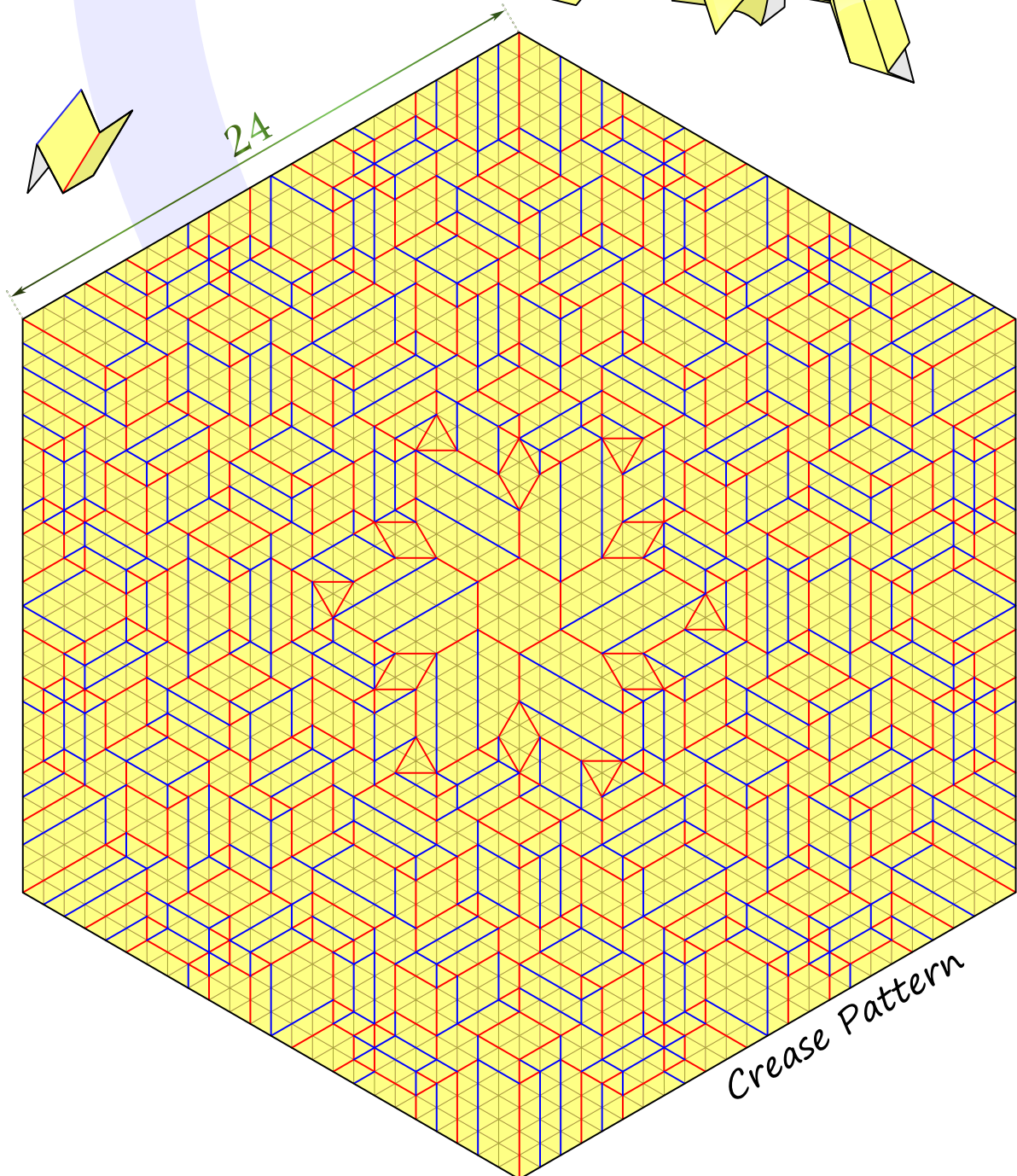
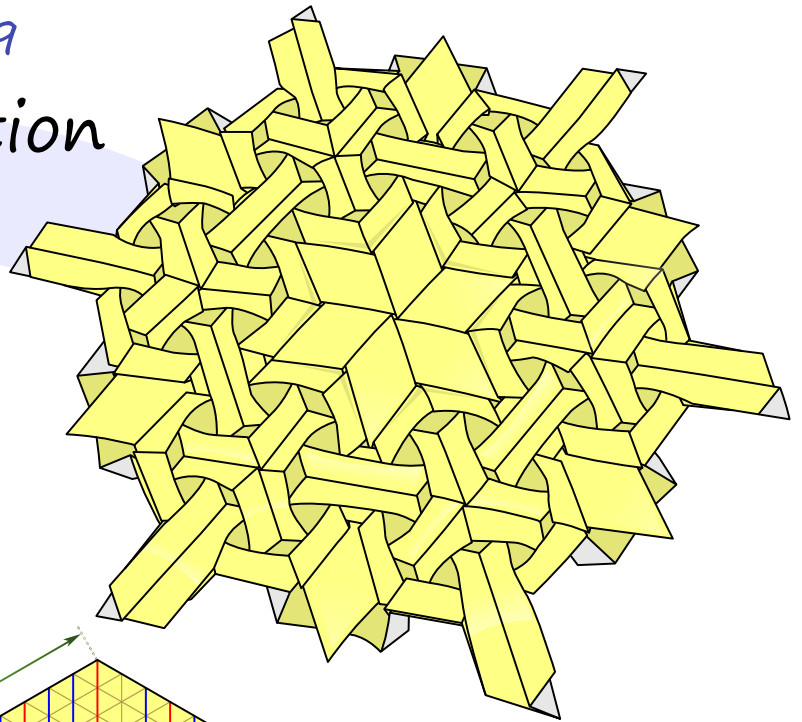
Difficulty: \*\*\*\*\*

Paper: 50-60 g/m<sup>2</sup>

Hexagon size: 20 cm

Final size: ~9 cm

Max score: 12 points



## Task №10

# Hippocampus

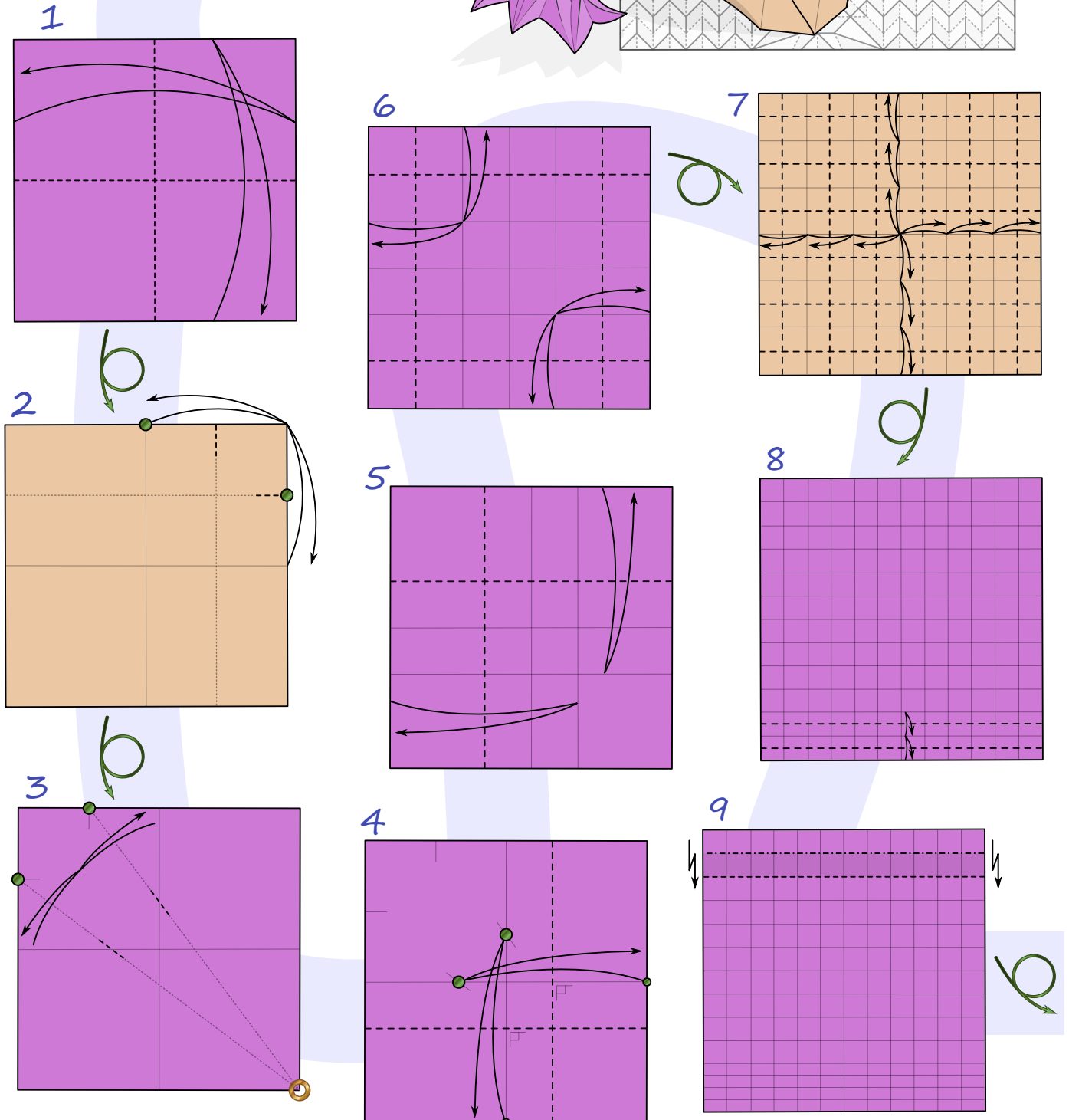
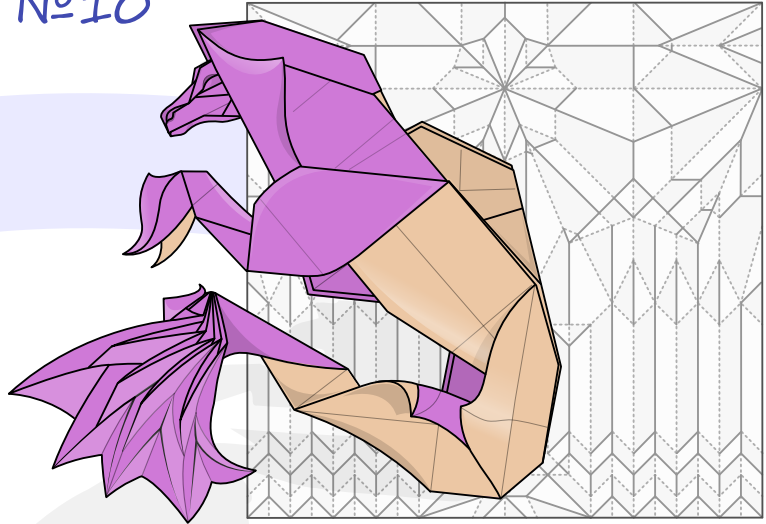
Andrey Ermakov (Russia)

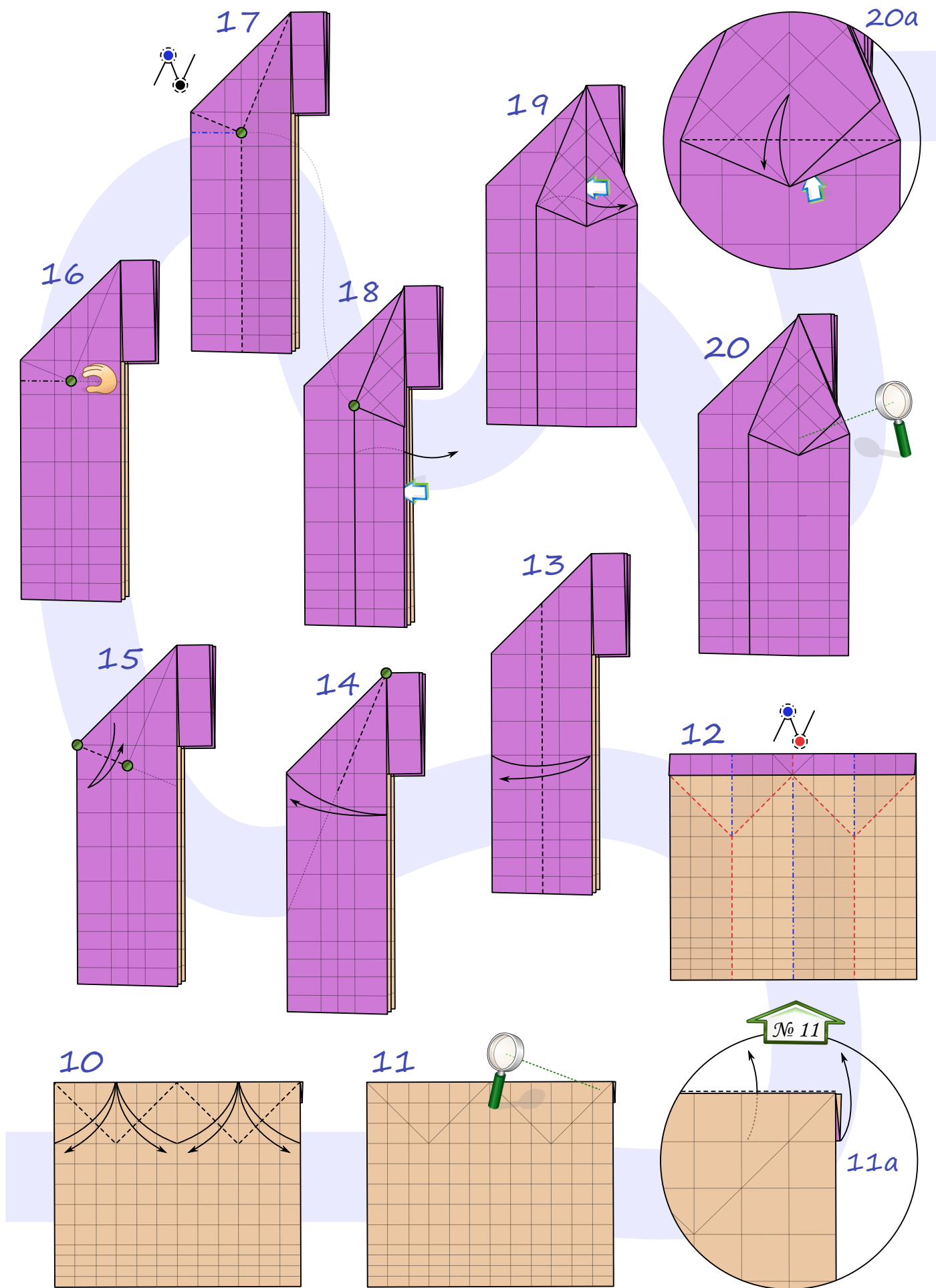
Difficulty: \*\*\*\*\*

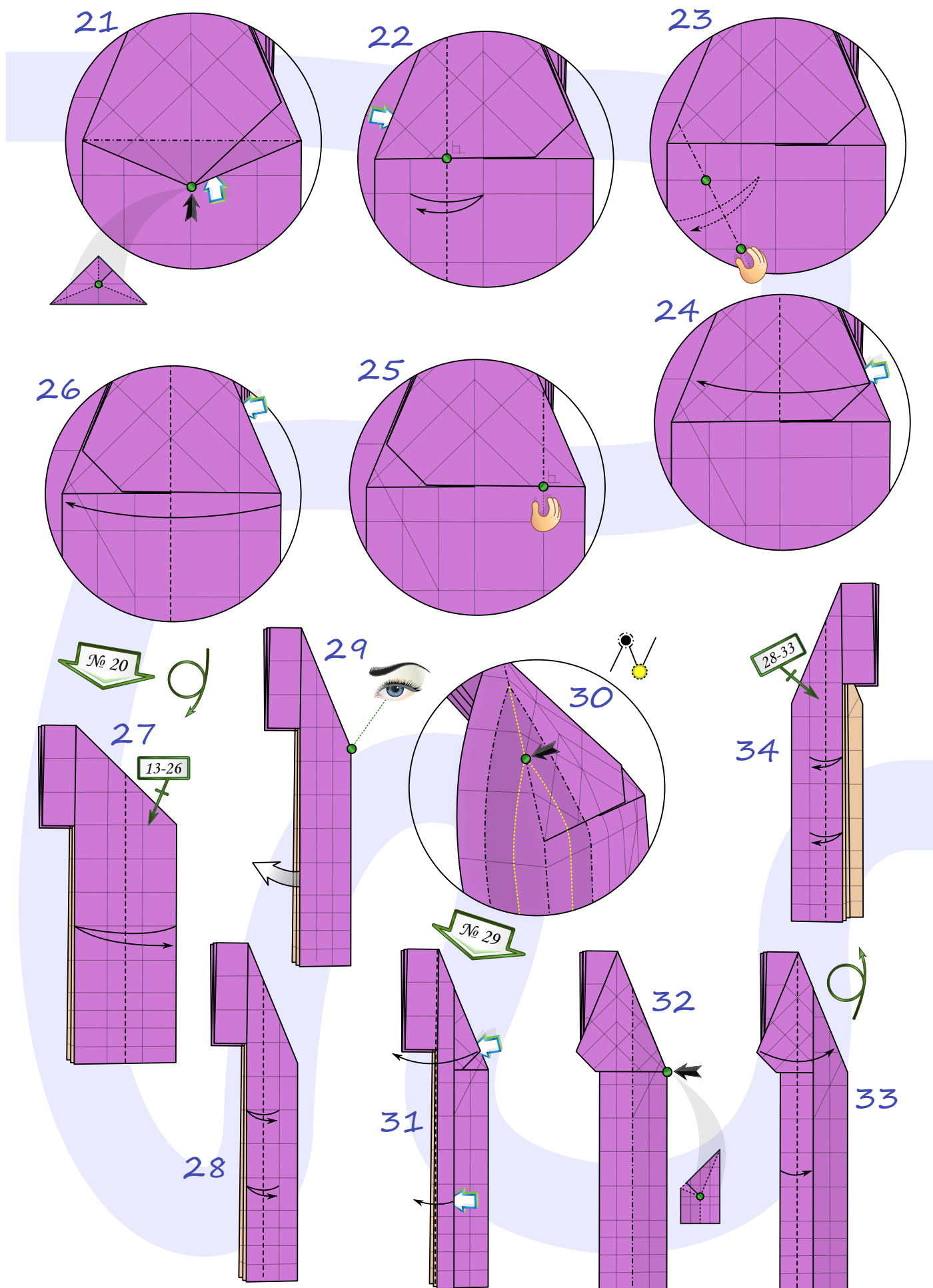
Paper: 40-50 g/m<sup>2</sup>

Paper size: 50-50 cm

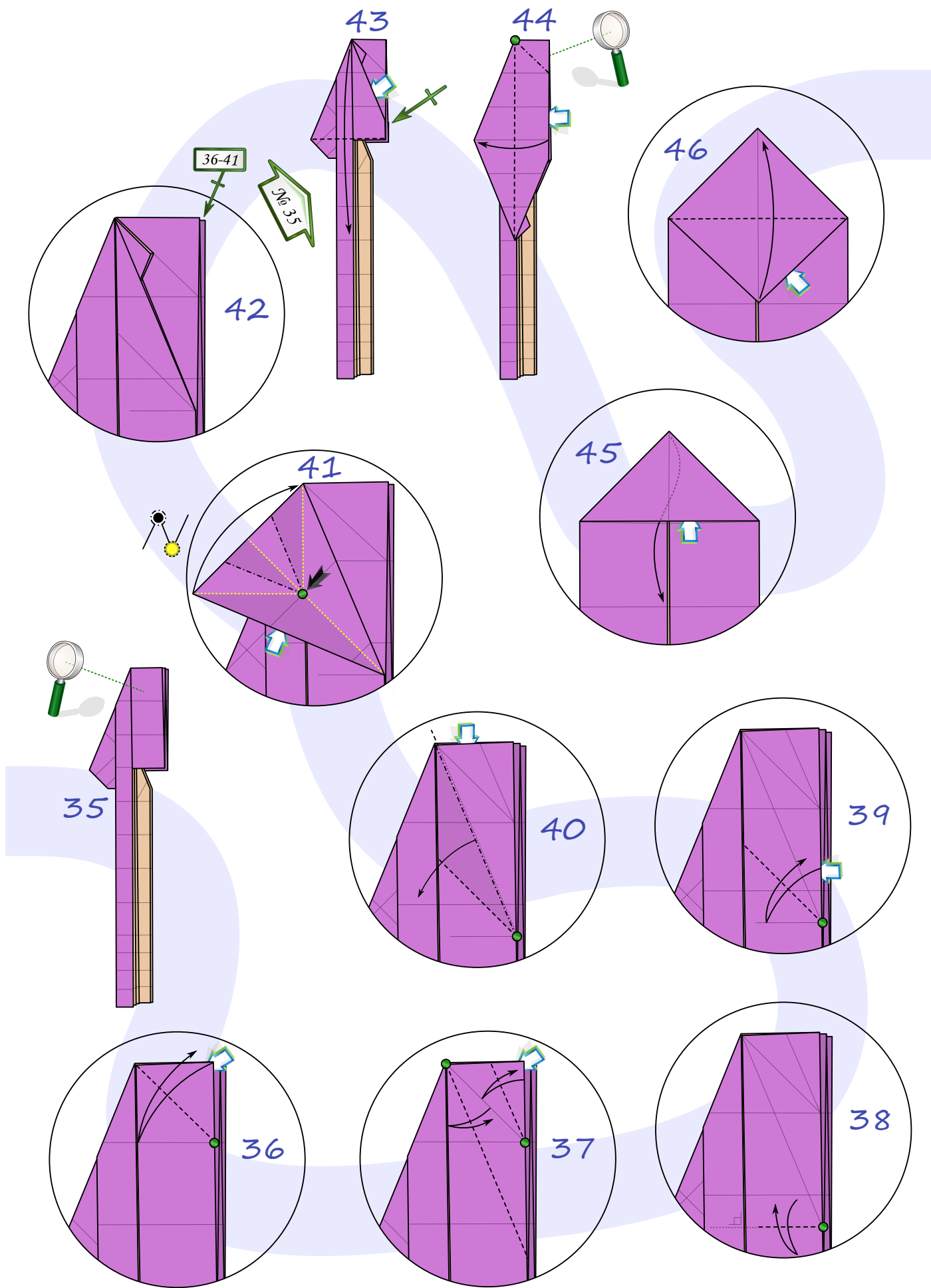
Max score: 7 points



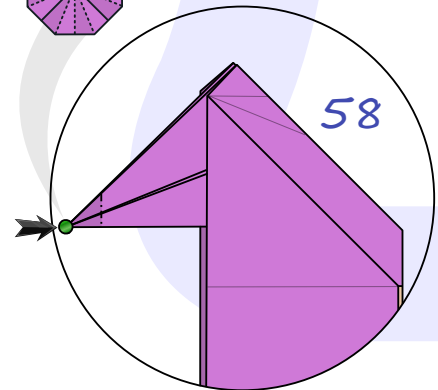
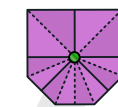
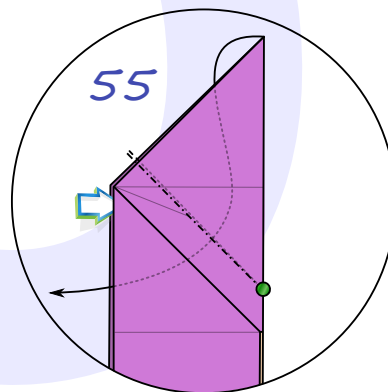
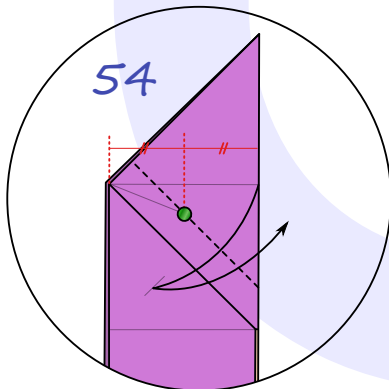
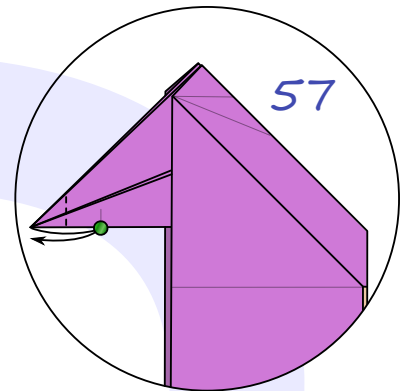
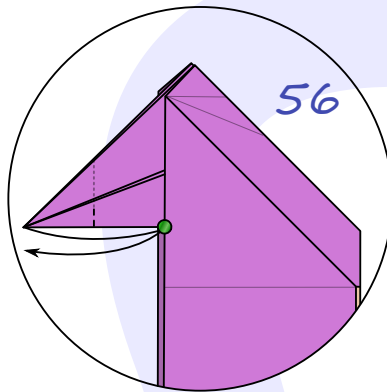
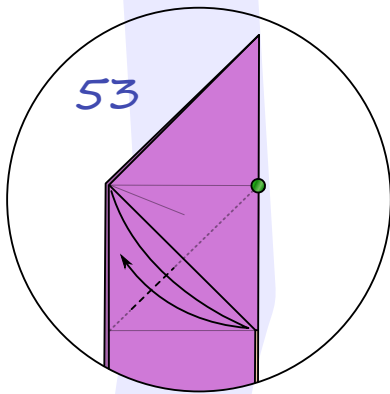
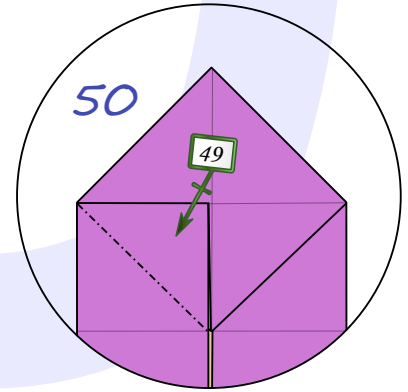
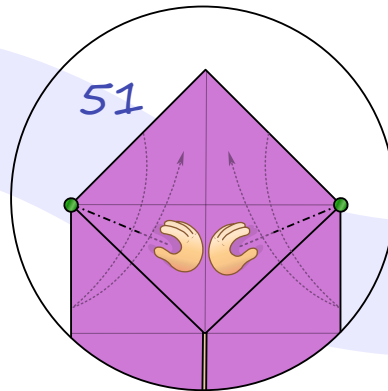
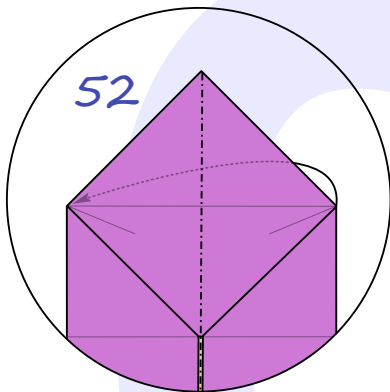
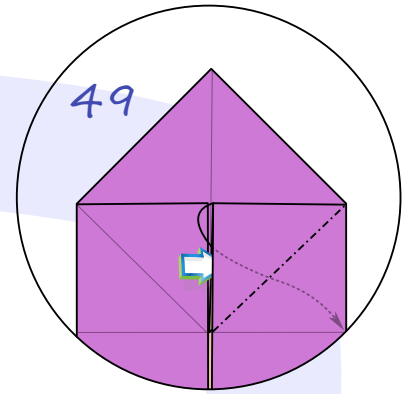
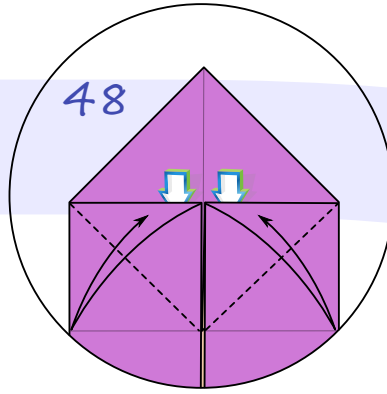
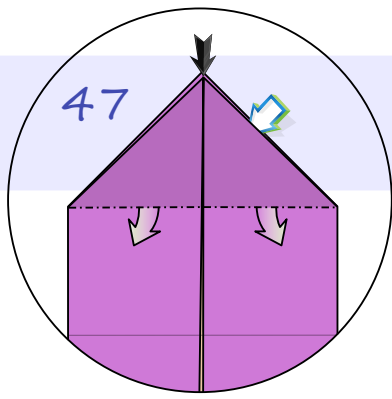


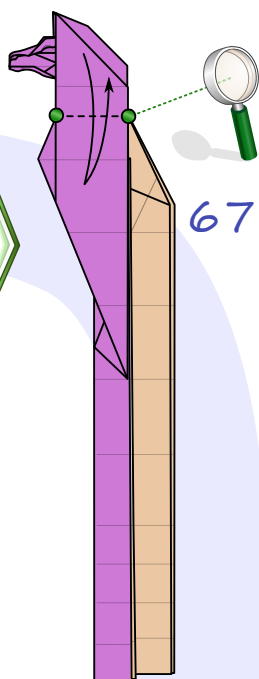
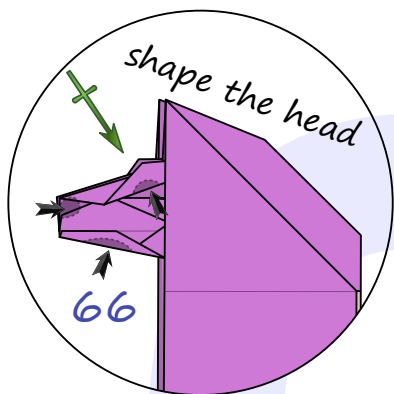




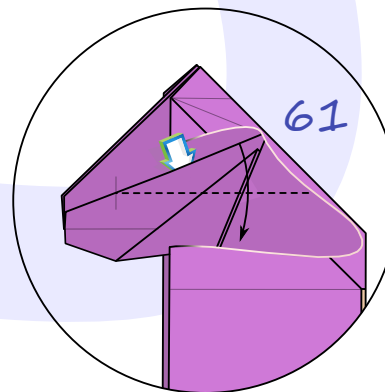
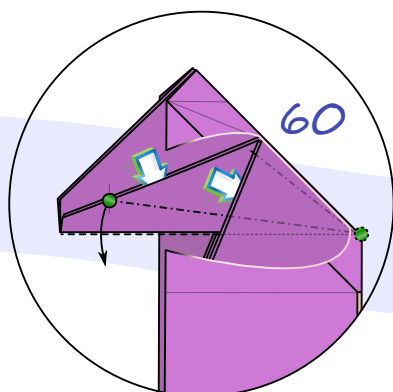
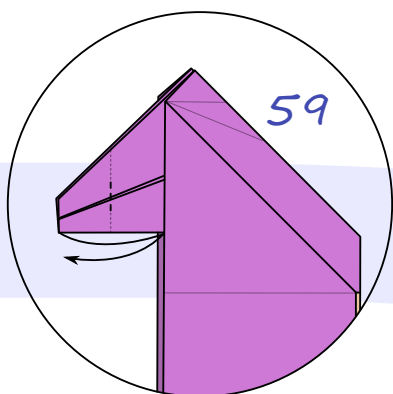
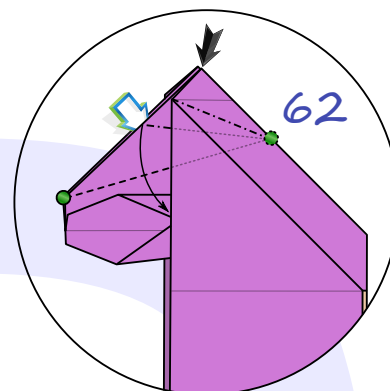
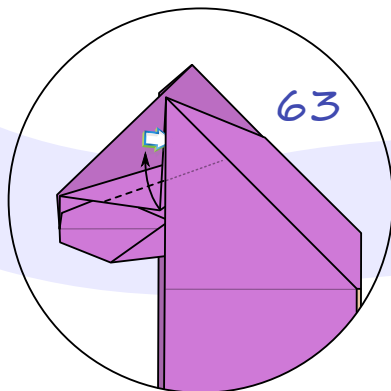
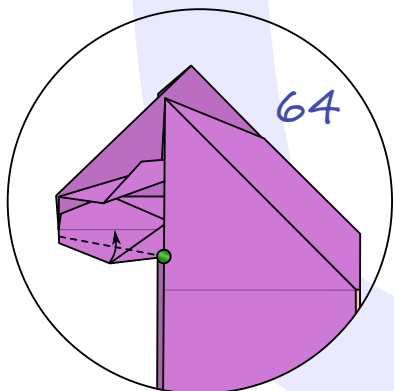
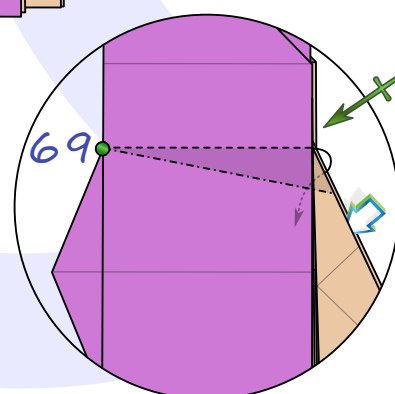
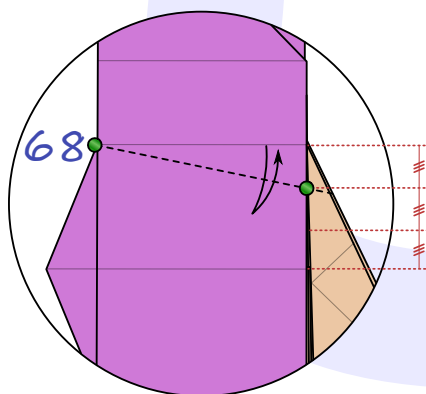
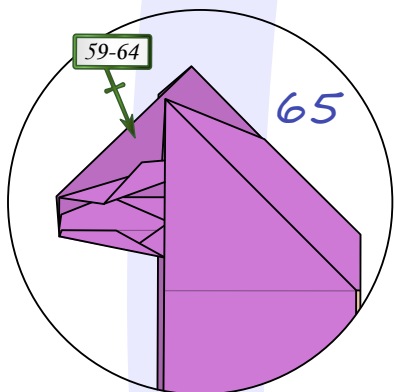
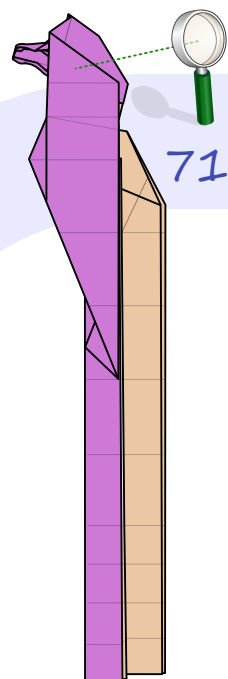
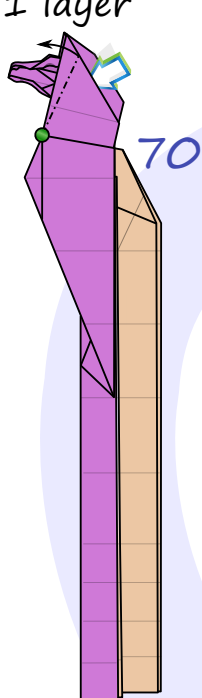


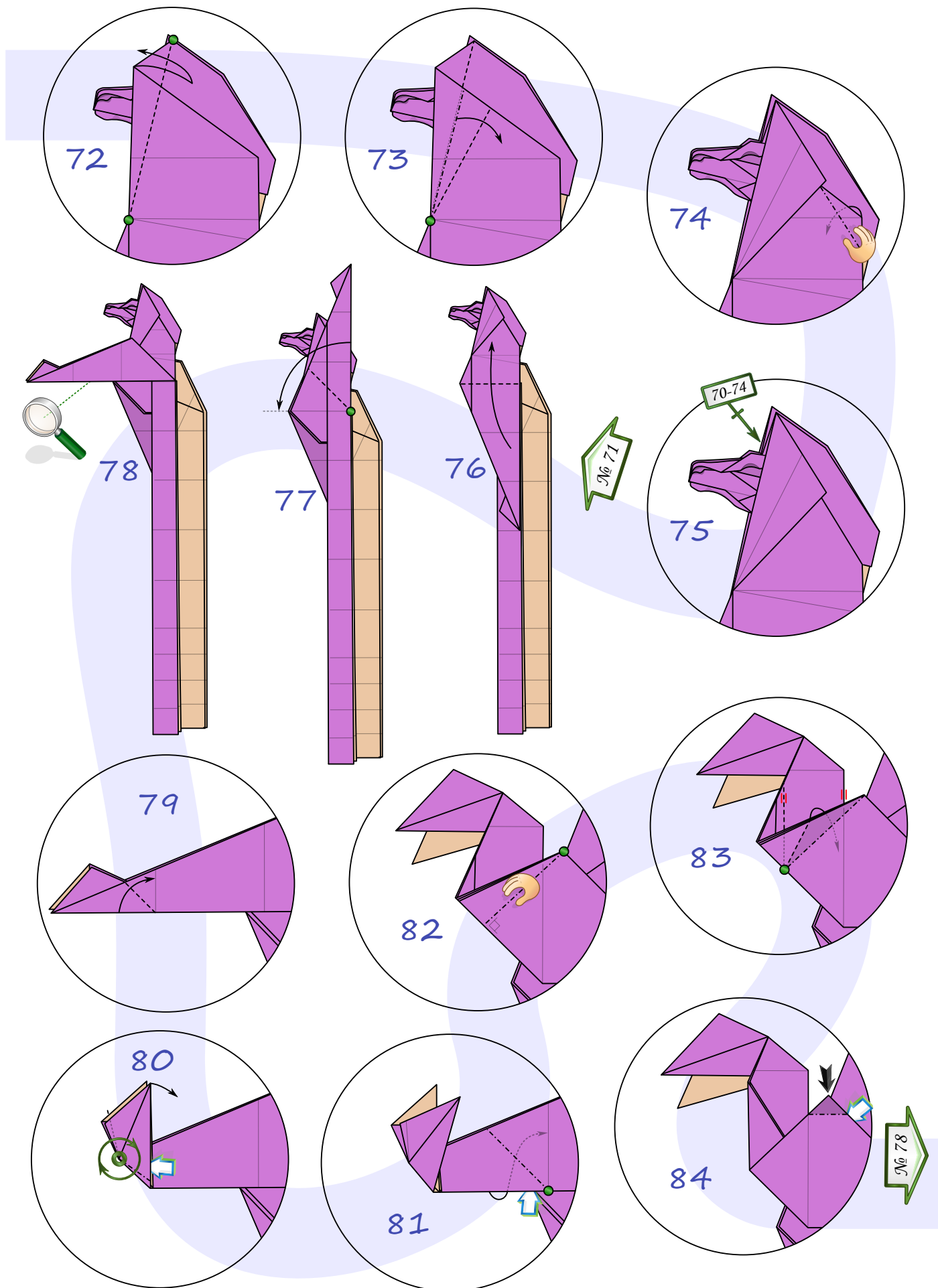


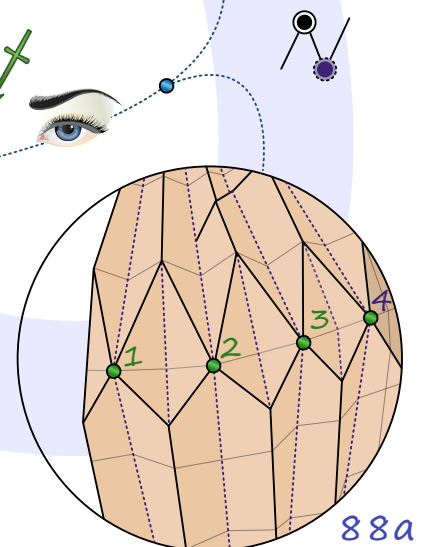
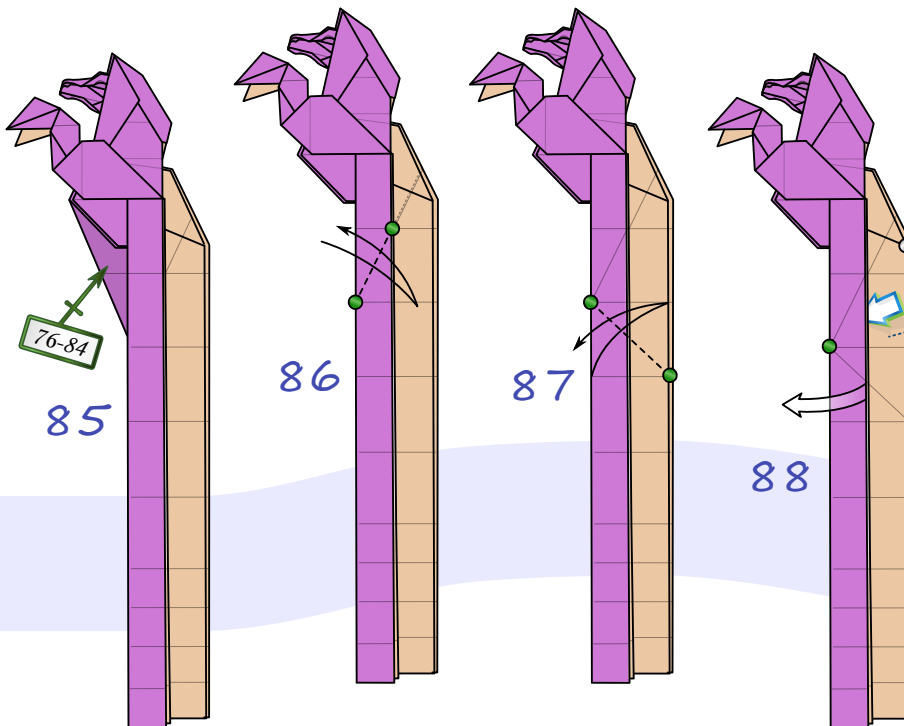
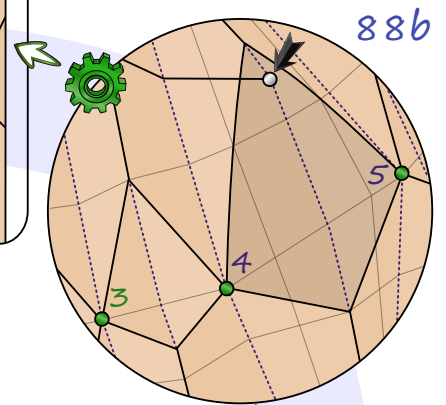
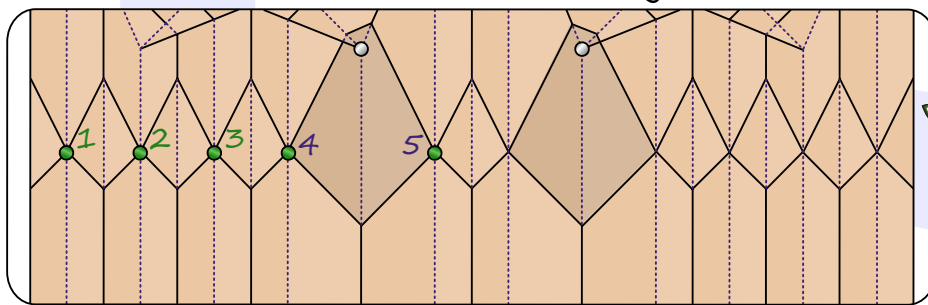
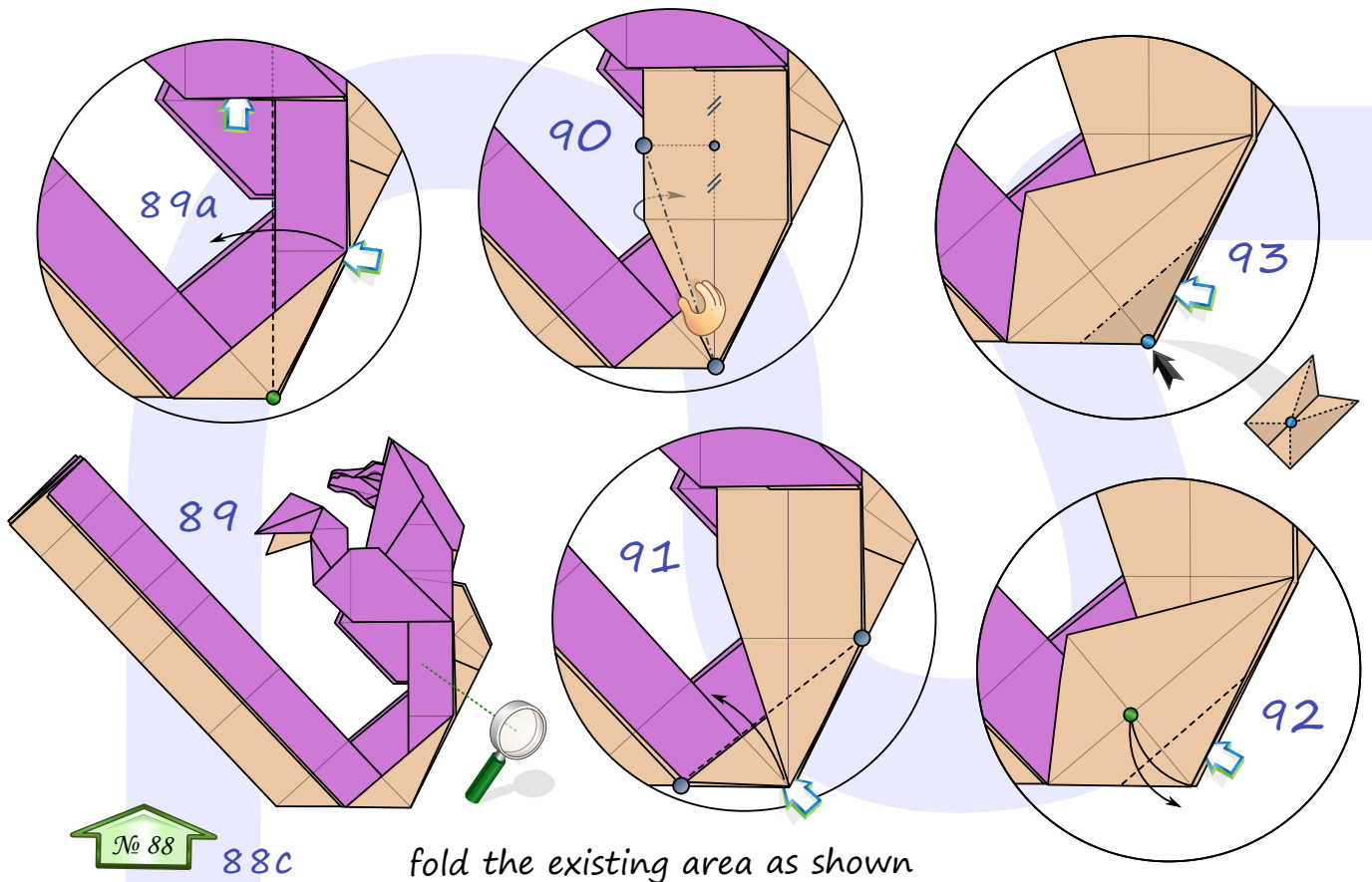


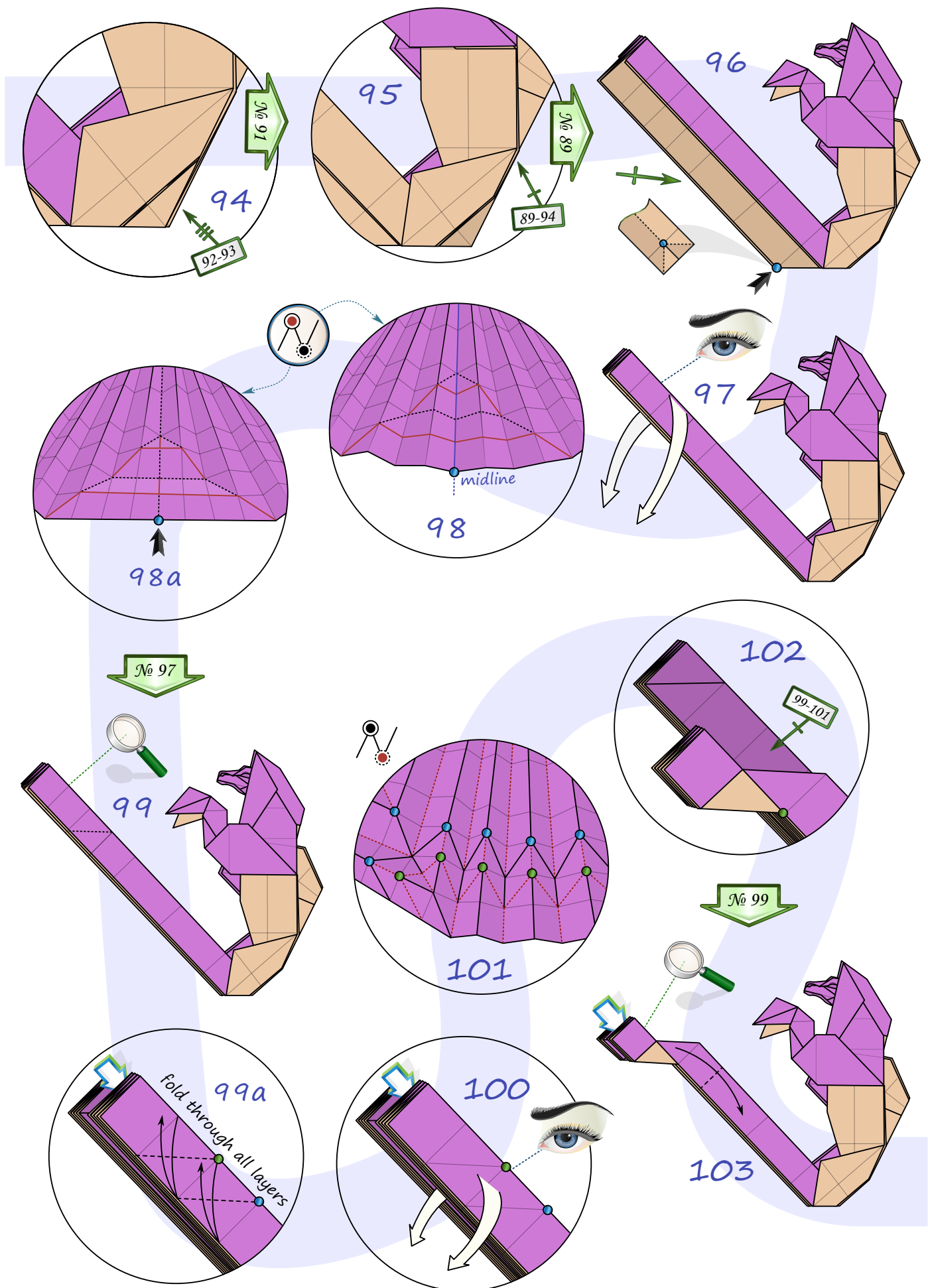


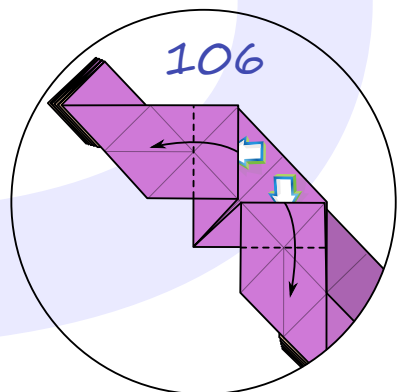
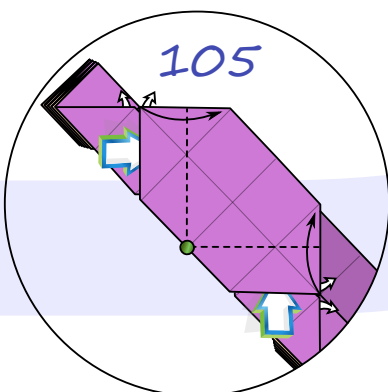
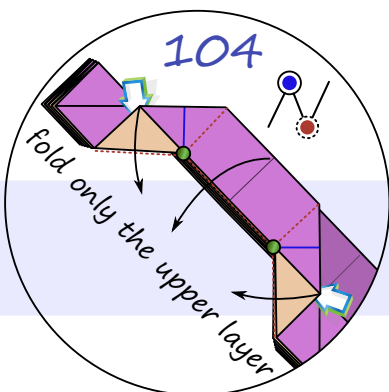
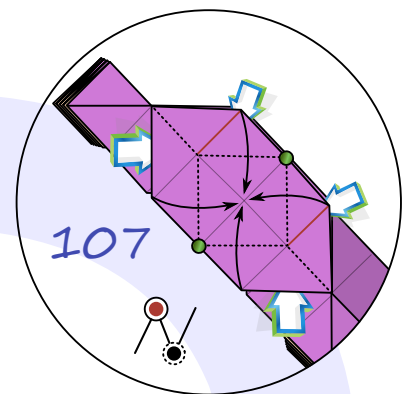
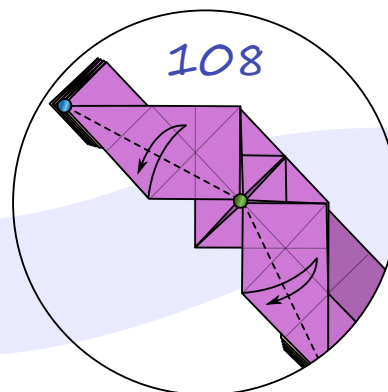
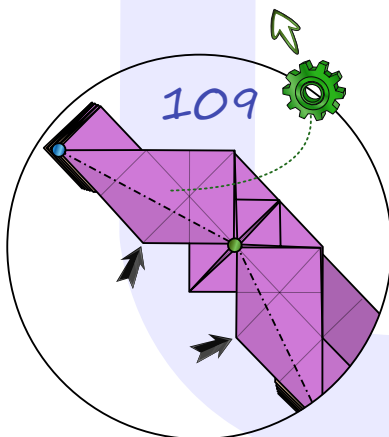
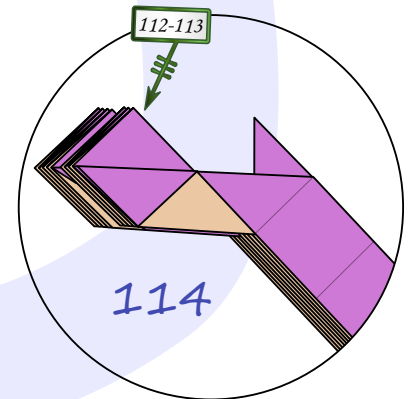
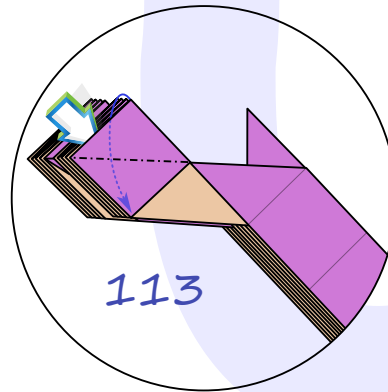
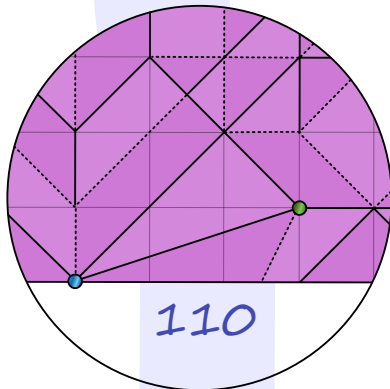
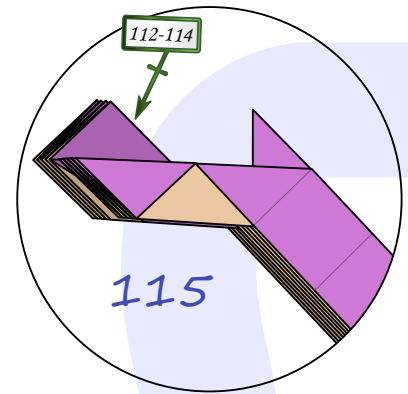
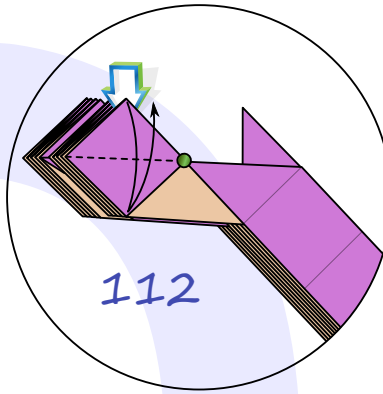
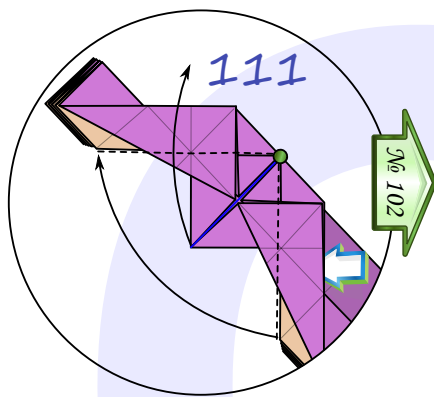
1 layer



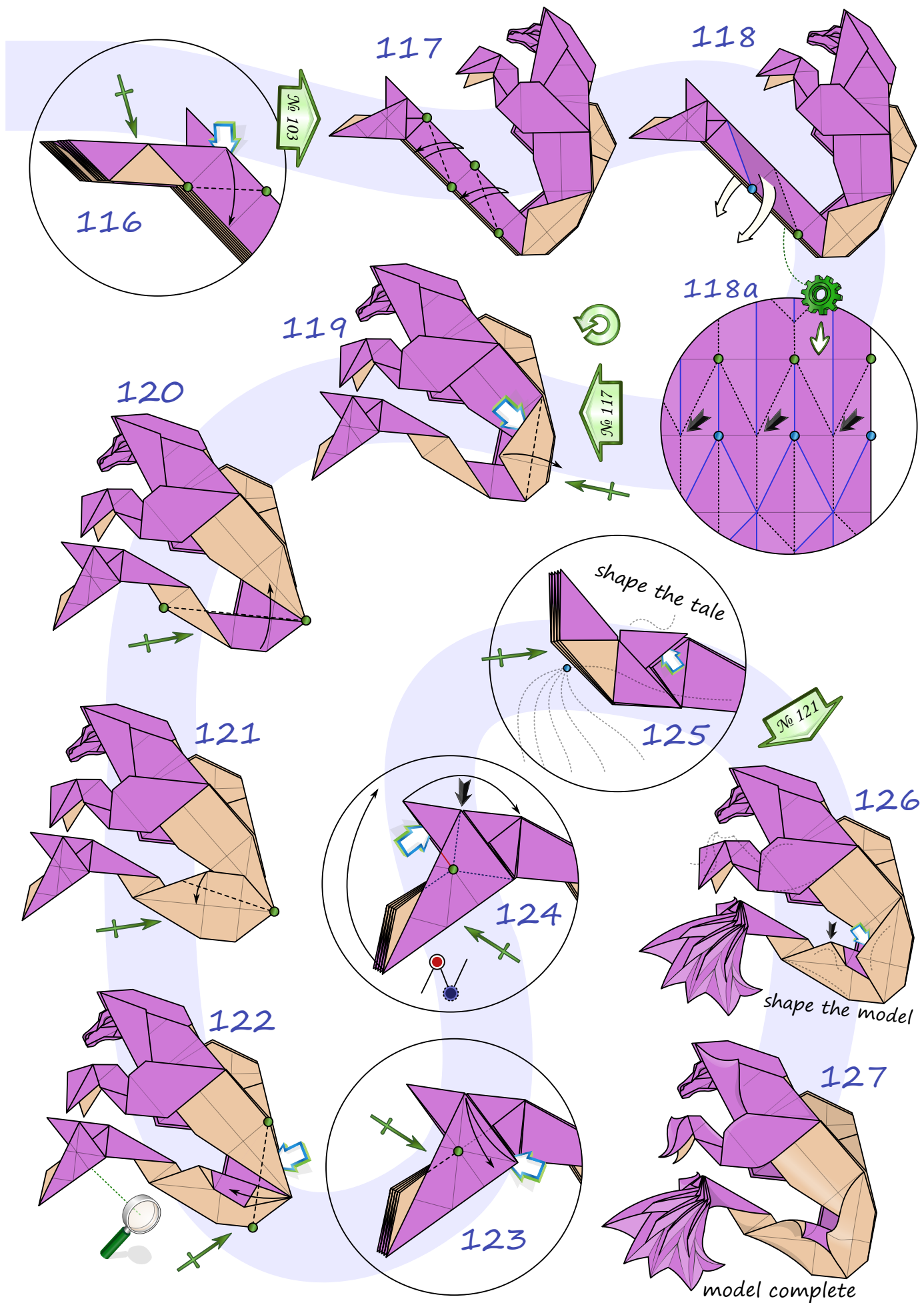












# Task №11

## Sea Tales

Maximum score: 15 points

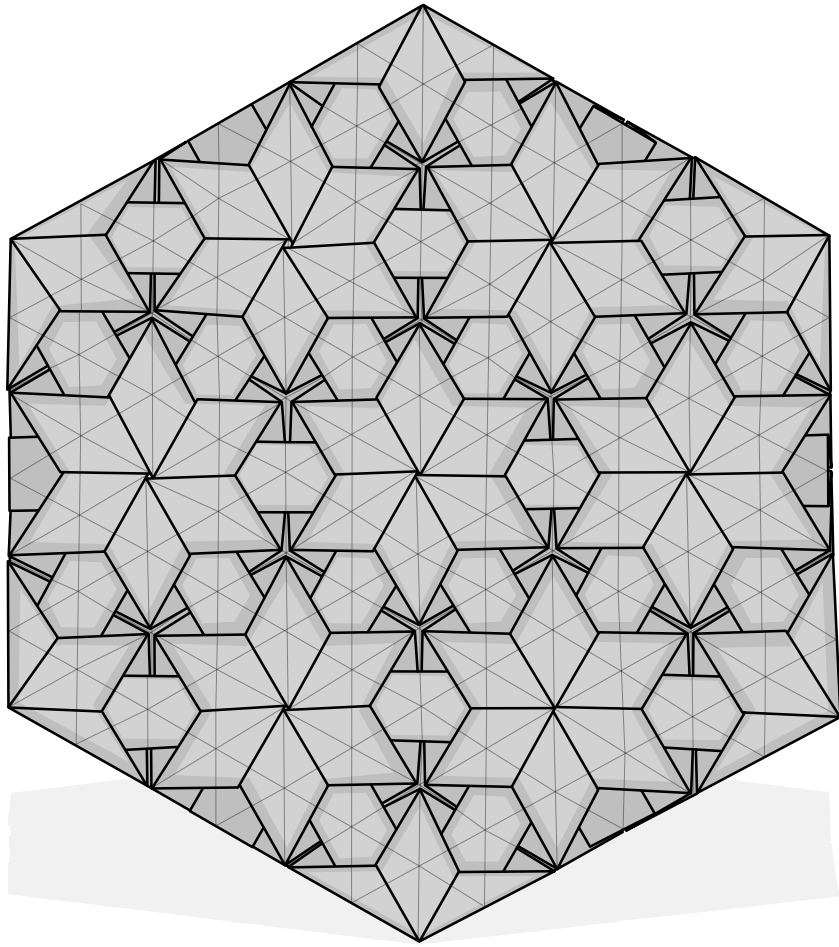
In this task we suggest you create your own model. You can choose any subject if it matches the theme. As usual, we propose a very broad topic allowing you to demonstrate your folding and designing skills.

The model can be created in any style, technique and complexity level. You just have to follow the ground rules:



- the model has to be created specifically for this Olympiad;
- one convex polygon sheet of paper (e.g. square, rectangle, triangle, pentagon, hexagon etc);
- no cuts;
- any color, size, type of paper etc;
- you can use MC+paper, foil-paper, wet-folding as well;
- no painting or varnishing of the finished model (you still can paint the paper before you start folding);
- minimal editing of the pictures is allowed as long as it doesn't affect the appearance of the model. (e.g. you can crop photos, reduce the noise, change color balance but you must not add, erase or change any details);
- you can make a composition photo with as many different models as you like, but only one of them will be judged (you must specify which one);
- you must include CP and other information about your model so the jury can see that the rules have been observed;
- multi-piece or modular designs will not be taken into account.

Good Luck!



*The End*

*Russia  
2021*

