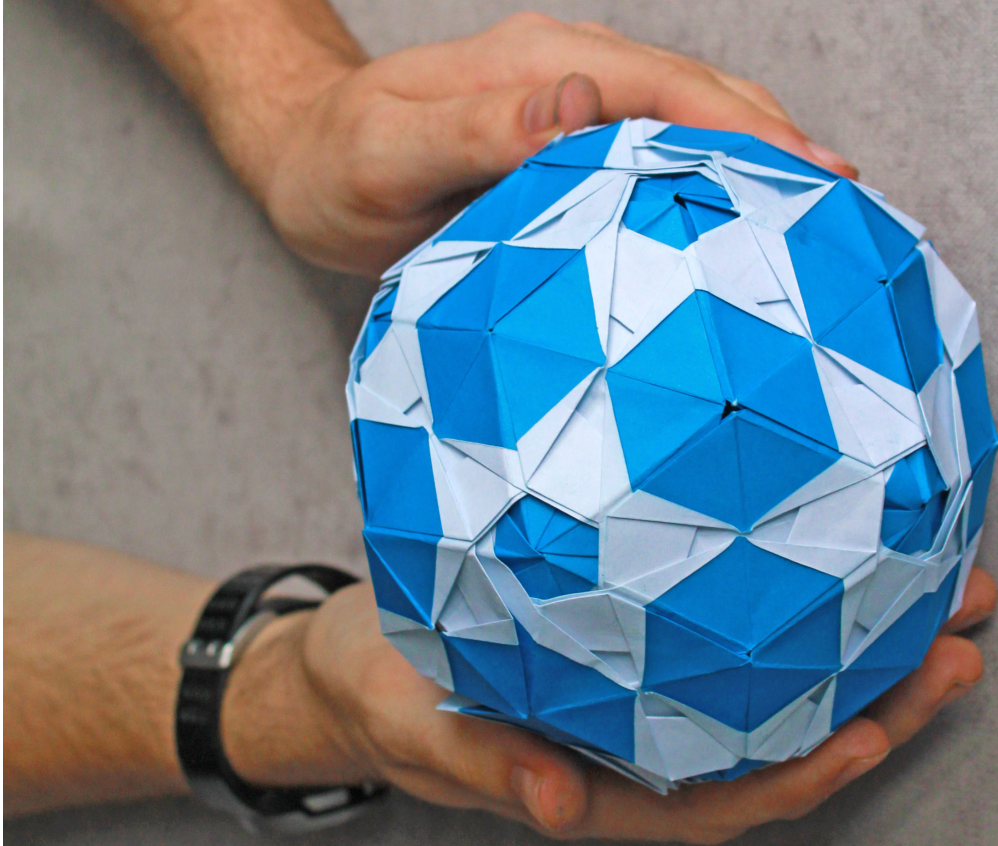


origami



折り紙

Edited by Ivan P. Spehar



Diagrams and photos by Sanja Srbljinović Čuček

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PREFACE

While I had encountered origami before as an elementary school student, I never truly understood what it was and what its implications were. This all changed when I joined the MIOC Origami Group as a part of my CAS programme and I met Ms. Čuček.

My understanding and view of origami changed overnight. It was no more a simple practice of paper folding to create various objects or models, I began to appreciate it as a true art. An art in which the possibilities were endless and one's creativity was more than welcome. What was truly shocking to me was the scientific applications of origami. I learned how origami could be used to make folding telescopes which could be packed onto space shuttles, or how models of folding solar panels were inspired by origami. Origami was even present in a science I enjoyed more than any other, biology. Everything from protein folding to the structure of DNA could be modeled to some extent with origami.

Joining the MIOC Origami Group truly did change my perspective on the arts. Folding paper made it obvious that art and science are delicately intertwined, since both require creative thoughts and original ideas. I have come to respect origami as an art as well as a science.

After a while, I started thinking about the lessons origami taught me, and the passion I had developed for it. I realised I wanted to share my newly obtained passion for origami, and what a better way to do it than through an official MIOC Origami Group booklet.

In this booklet, you will find a selection of traditional and modern origami models, all of which have been kindly contributed by Ms. Čuček. I hope they will inspire your origami journey and help you see the beauty and intricacy of origami. Maybe one day you will be making your own origami booklet.

Ivan P. Spehar

INTRODUCTION

Some simply see origami as an art of meticulous paper folding undertaken by idle enthusiasts. However, what if one were to see it as an ancient art? An ancient art not undertaken by commoners with an abundance of time, but by royalty, astronomers, and mathematicians.

It all started with the invention of paper in 105 A.D. by Cai Lun of China. The roads of trade brought it to the East and West alike. Yet, perception of paper is deeply rooted in its use. Thinking of it, we may first imagine writing, drawing and recording events. Moreover, we can see it as a way to express one's beliefs, thoughts, and wishes. Or we can visualize money, wrapping and cleaning paper.

All throughout the centuries, in the East, one would gift carefully folded paper forms as symbols of life, good wishes and religion. Paper birds may have been presented to those who were free spirits, horses to those who were to progress swiftly in their lives, and to those in misfortune paper talismans issued by a shrine. Both the East and the West have been using paper as a currency, wrapping and cleaning material.

It was not until paper's arrival in the early 7th century Japan that the art of paper folding would truly emerge as we know it historically. The Japanese improved the papermaking process and implemented their own rules and principles, making paper folding a true art form. This was the birth of what we know to be origami.

Samurai warriors would exchange ceremonial folds as symbols of good luck, origami butterflies were placed on bottles of wine at weddings, one male and one female to symbolize the bride and the groom. Formal origami was even used to fold and seal diplomas of tea ceremony masters, authenticating them.















By the 8th century, the art form would have spread to the Middle East, where it was used by astronomers and mathematicians to teach geometry as well as to create elaborate architectural models. As paper became more available in the 19th century, origami continued to thrive. It was taught in schools and kindergartens, and became an interesting art form that anyone could engage in.

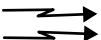








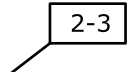


However, the expansion of origami only continued. Akira Yoshizawa, the ‘Father of Modern Origami’ transformed origami from a children’s craft into the intricate and well-respected art form it is today. In the 1950-ties, Master Yoshizawa even invented a standardised origami notation system, allowing origami artists all around the world to share their diagrams.

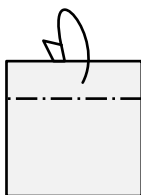
Even in today’s rapidly developing digital world, origami has a place not only in art but in science as well. From the folding of solar panels to the 3-D structure of proteins, origami can be seen in all aspects of science. It is considered a pocket lab, where a heart stent, an airbag, and a space telescope follow the mathematical axioms of paper folding.

Our rapidly changing and technologically driven world will continue to benefit from the ancient art of paper folding, as it fosters innovation and creativity.

Ivan P. Spehar

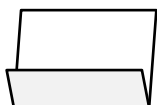
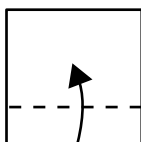
	SYMBOLS	SIMBOLI
	duo paper	dvobojni papir
	edge	rub
	X-ray edge or imaginary line	nevidljivi rub ili zamišljena linija
	mountain fold	ispupčeni nabor
	valley fold	udubljeni nabor
	crease line	linija savijanja
	pinch crease	uštignuti ovdje
	fold in the direction of the arrow	saviti u smjeru strelice
	fold back	saviti otraga
	cut here	odrezati ovdje
	open	otvoriti
	precrease	saviti i otvoriti
	roll over	saviti u istom smjeru više puta
	pleat	plisirati

	SYMBOLS	SIMBOLI
	double pleat	dvostruko plisirati
	repeat once on the other side	ponoviti jednom s druge strane
	turn round	okrenuti
	rotate	zakrenuti
	push in	uvući
	pull here in the direction of the arrow	povuci ovdje u smjeru strelice
	tuck in the pocket	umetnuti u džep
	zoomed-in view	uvećani prikaz
	zoomed-out view	umanjeni prikaz
	repeat steps 2-3	ponoviti korake 2-3
	view	perspektiva
	enlarged detail	uvećani detalj



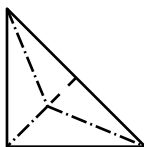
mountain fold

izbočeni nabor



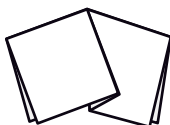
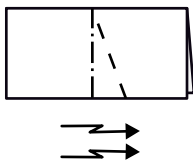
valley fold

udubljeni nabor



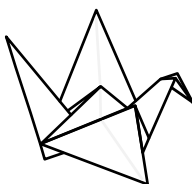
rabbit ear

zečje uho



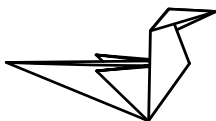
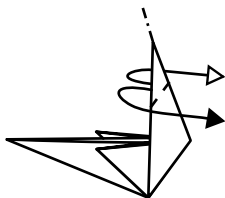
crimp

dvostruki nabor

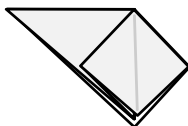
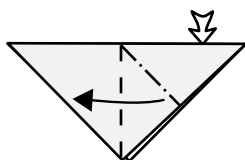


inside reverse

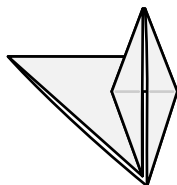
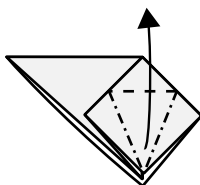
nabor izvrnut
prema unutra



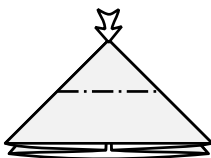
outside reverse
nabor izvrnut
prema van



squash fold
spljošteni nabor



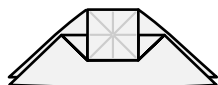
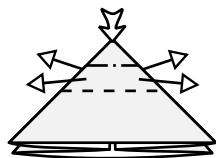
petal fold
nabor latice



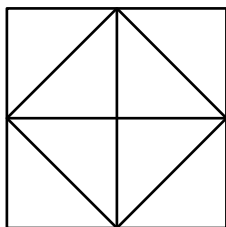
open sink
otvoreni uvučeni vrh



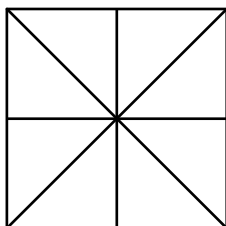
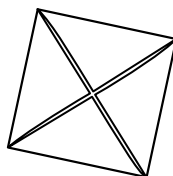
closed sink
zatvoreni uvučeni vrh



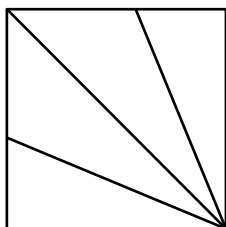
spread squash fold
rašireni spljošteni nabor



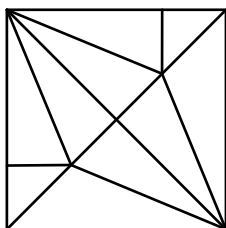
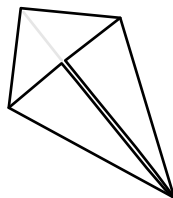
blintz base
baza omotnice



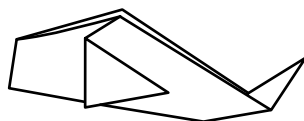
waterbomb base
baza vodene bombe

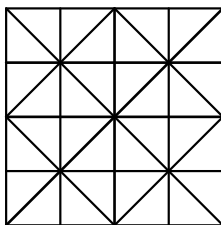


kite base
baza zmaja

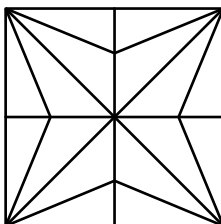
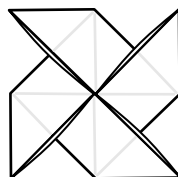


fish base
baza ribe

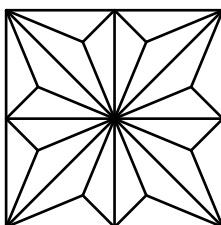
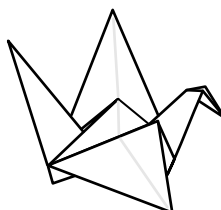




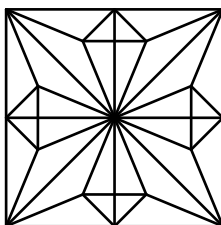
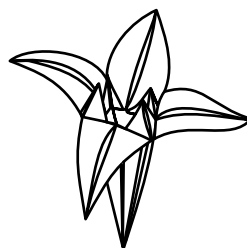
windmill base
baza vjetrenjače



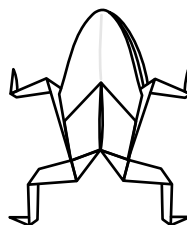
bird base
baza ptice



flower base
baza cvijeta



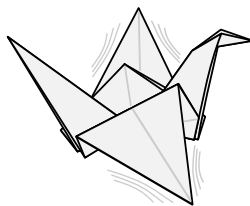
frog base
baza žabe



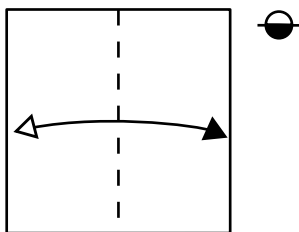
FLAPPING BIRD

LEPRŠAVA PTICA

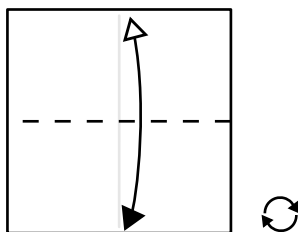
Traditional design



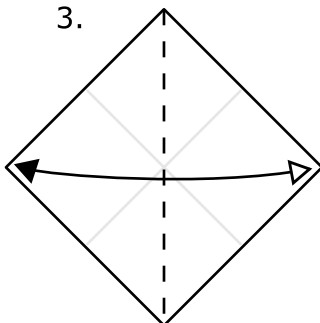
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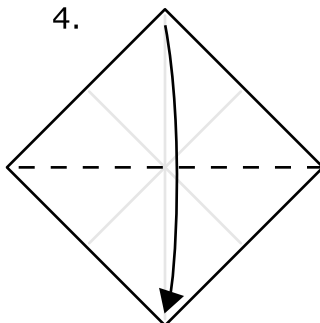
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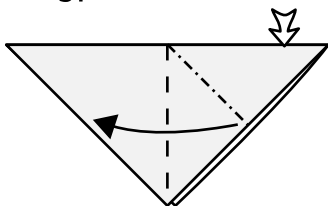
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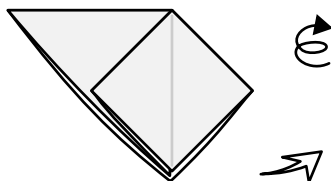
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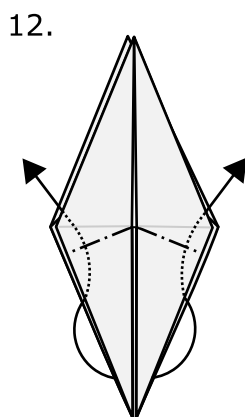
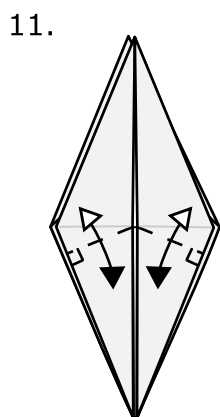
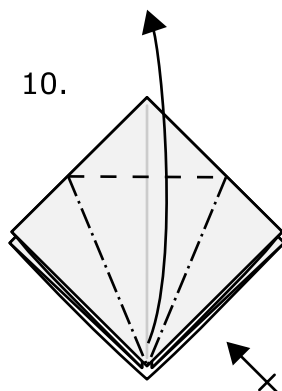
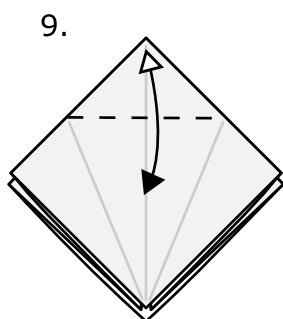
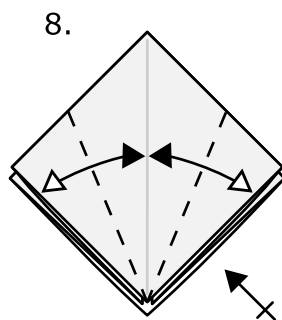
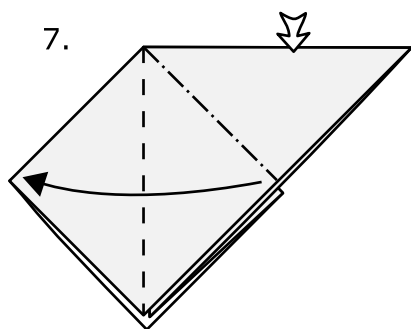


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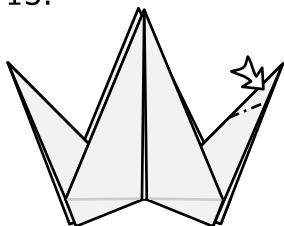


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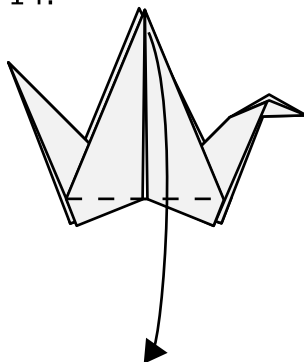




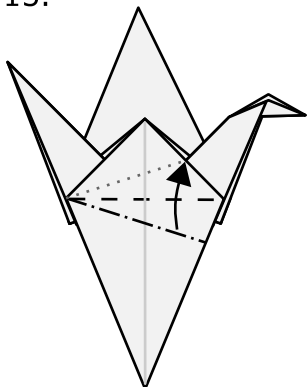
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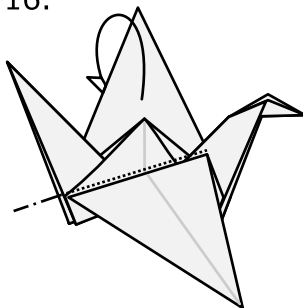
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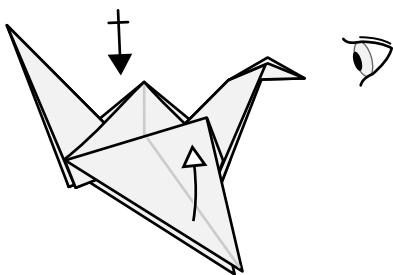
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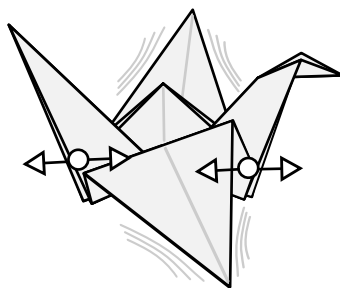
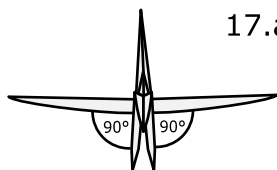
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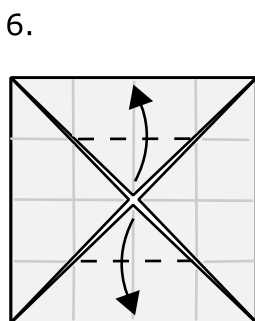
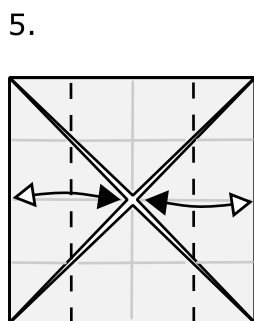
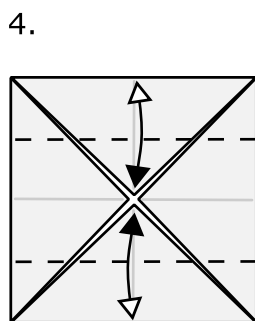
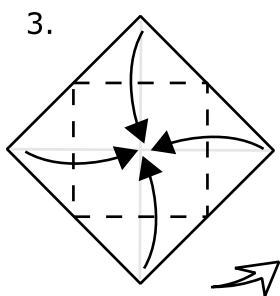
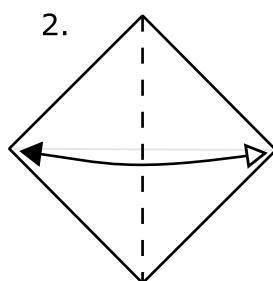
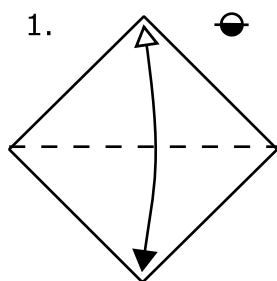
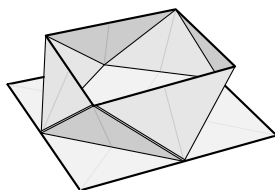
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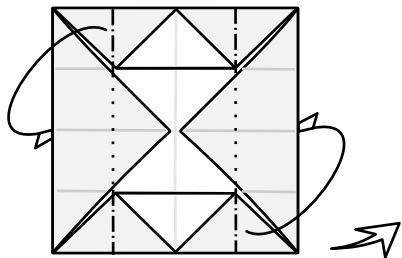
MASU BOWL

MASU ZDJELA

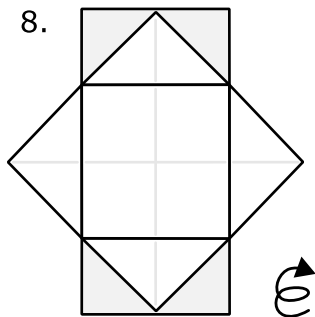
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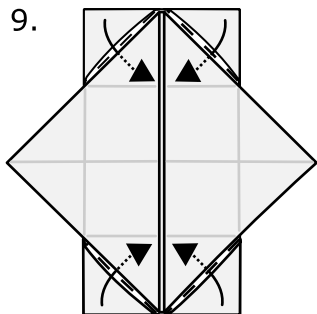
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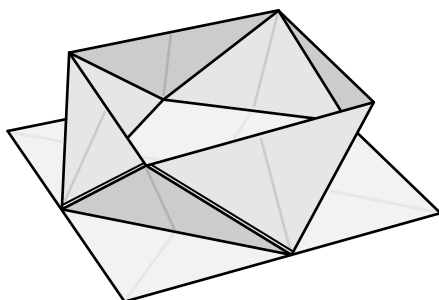
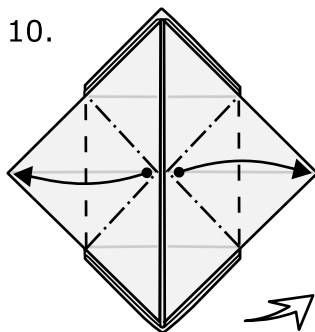
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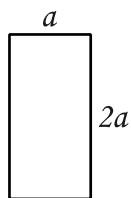
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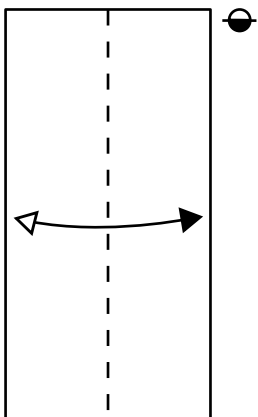
SHIRT

KOŠULJA

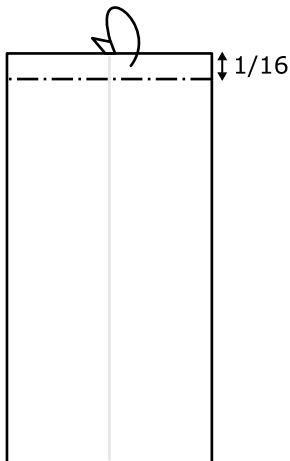
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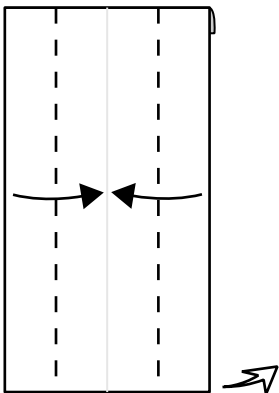
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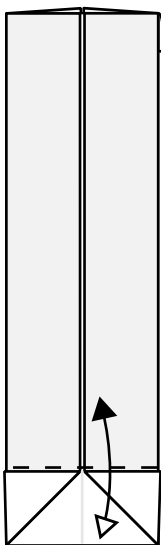
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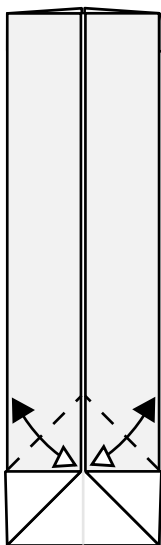
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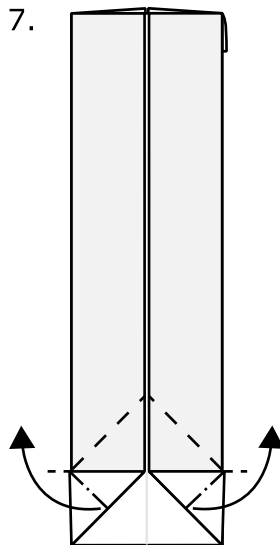
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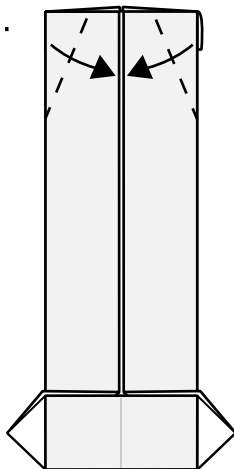
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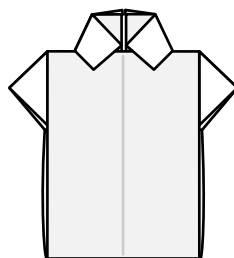
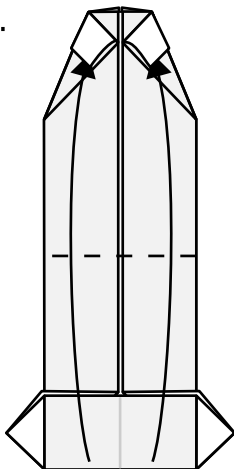
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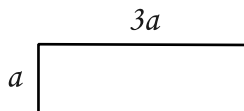
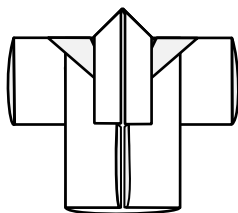
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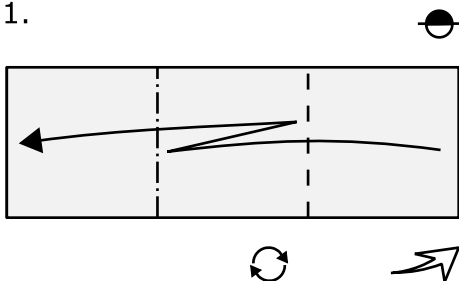
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KIMONO

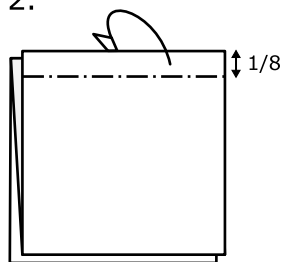
Traditional design



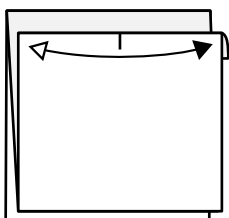
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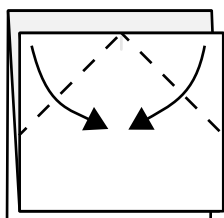
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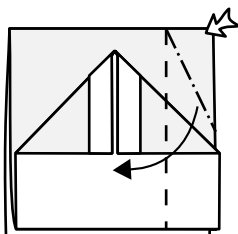
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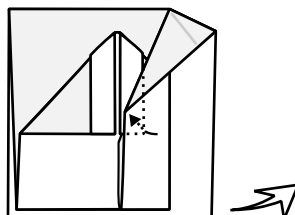
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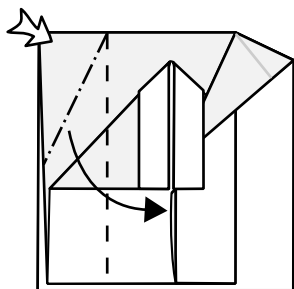
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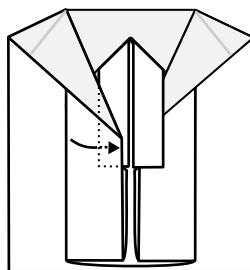
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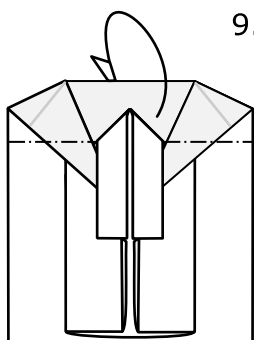
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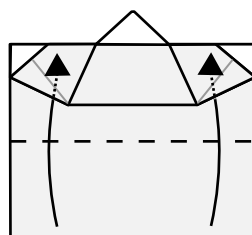


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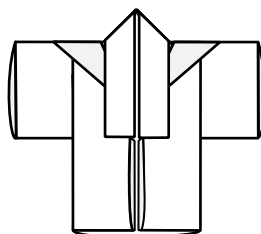
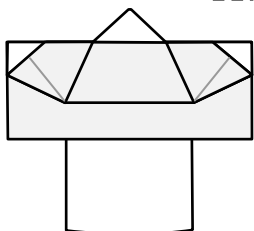


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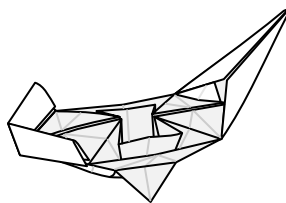
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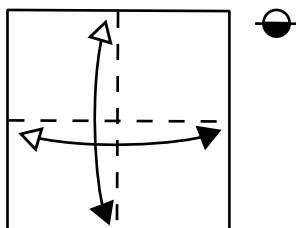
TREASURE BOAT

BROD S BLAGOM

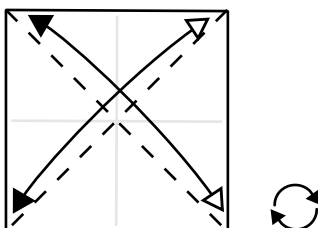
Traditional design



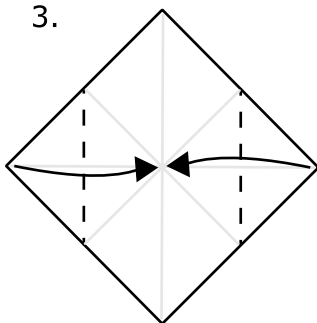
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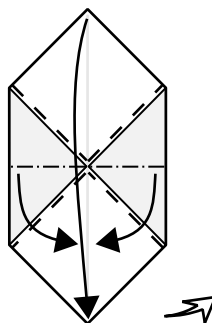
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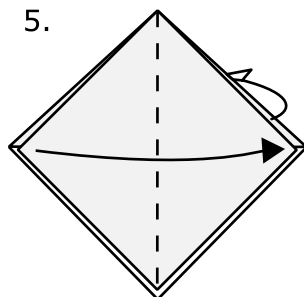
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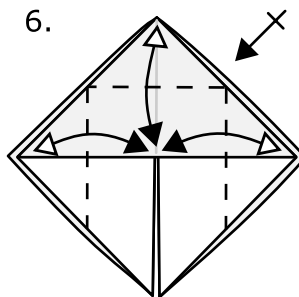
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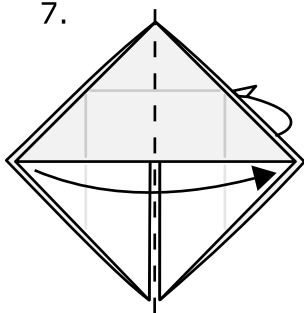
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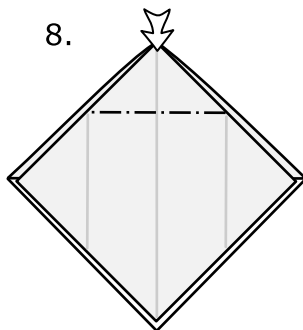
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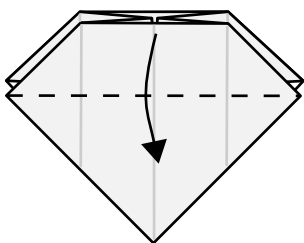
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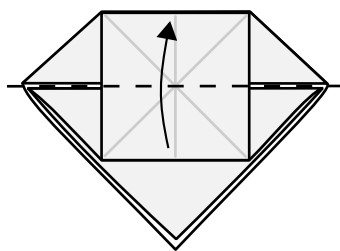
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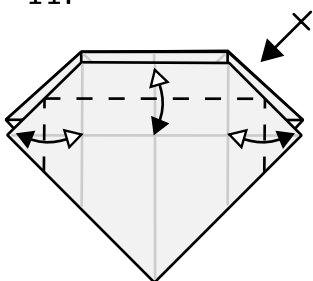
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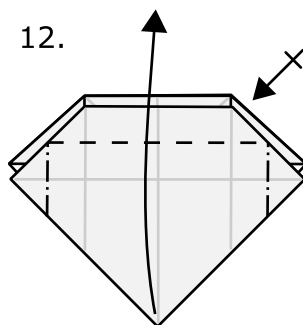
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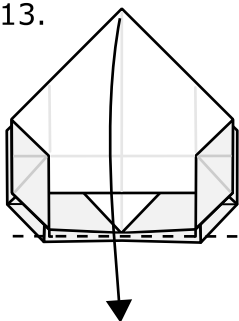
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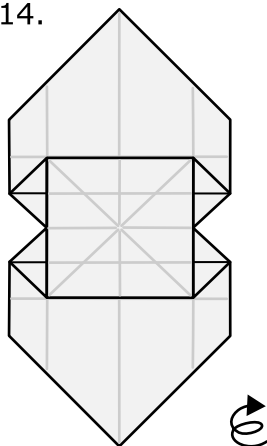
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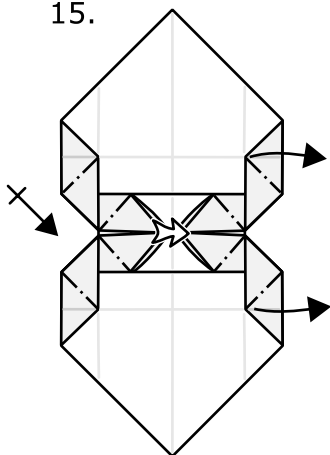
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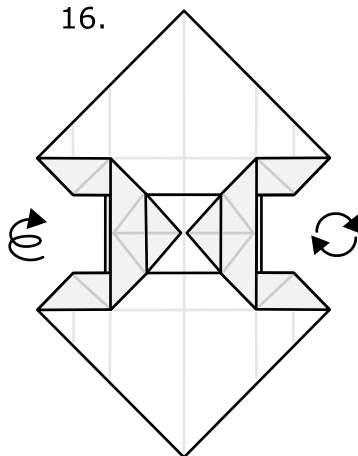
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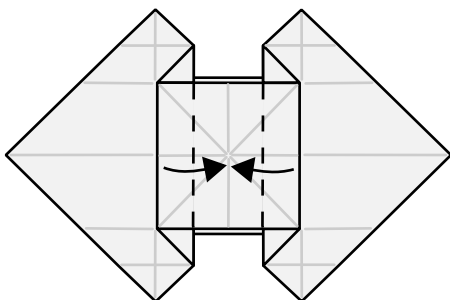
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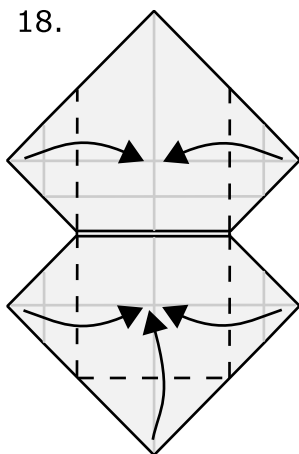
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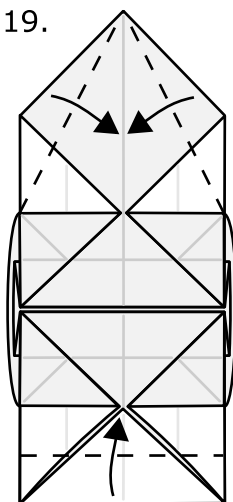
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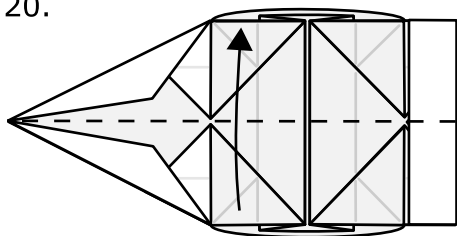
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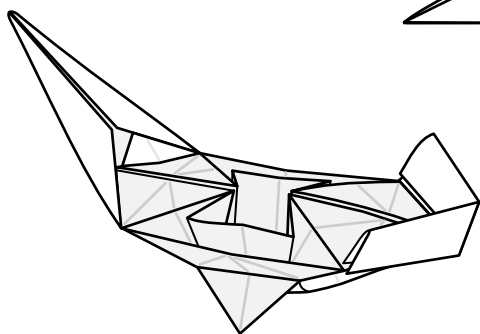
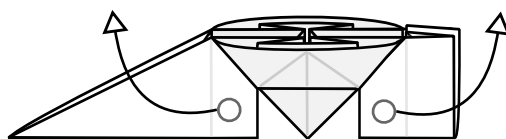
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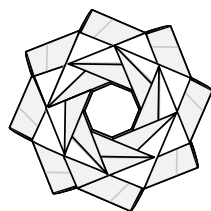
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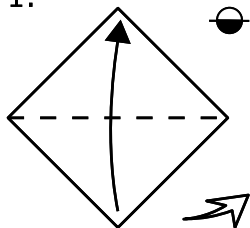
XMAS WREATH

BOŽIĆNI UKRAS

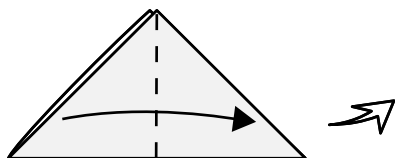
Design: Sanja Srbljinović Čuček



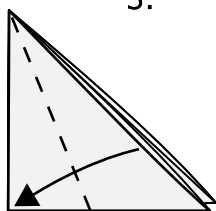
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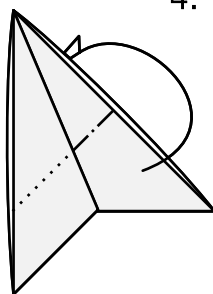
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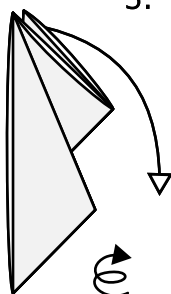
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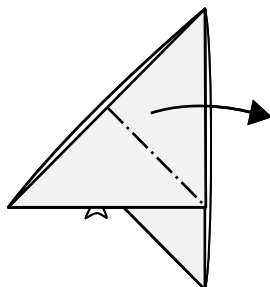
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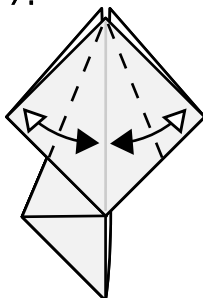
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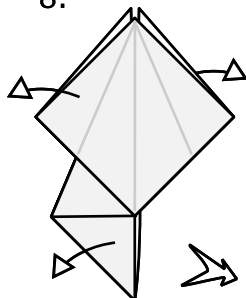
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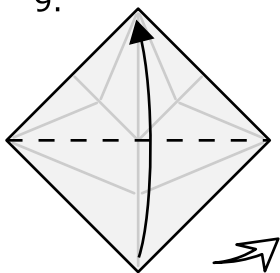
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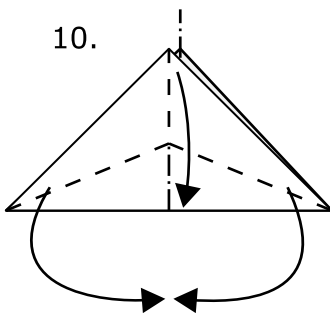
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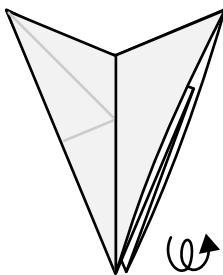
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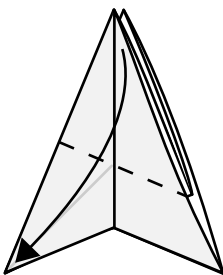
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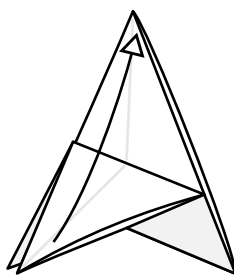
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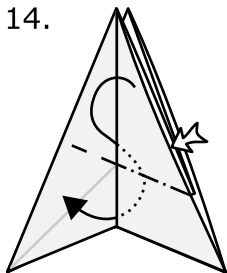
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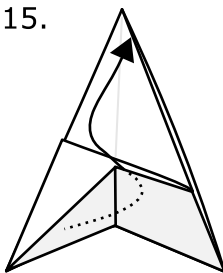
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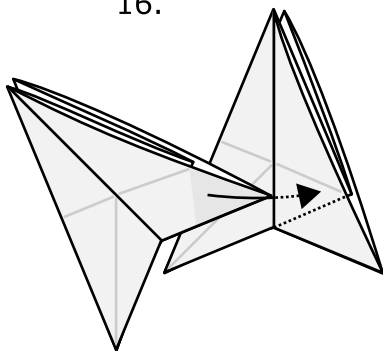
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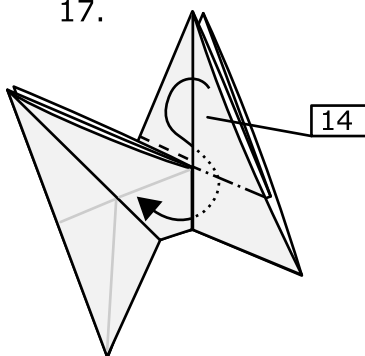
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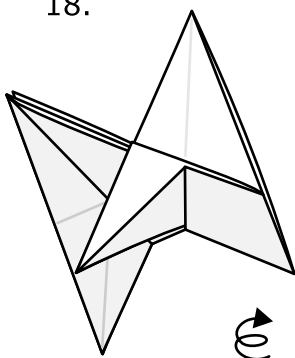
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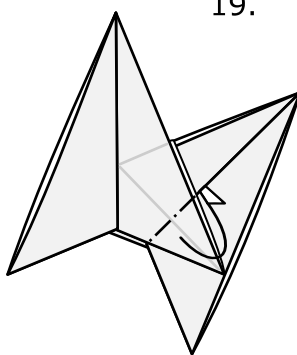
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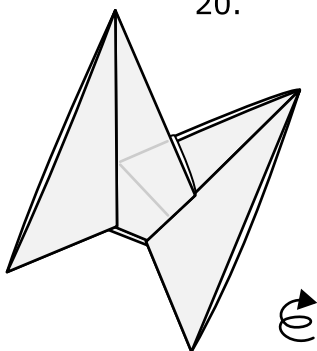
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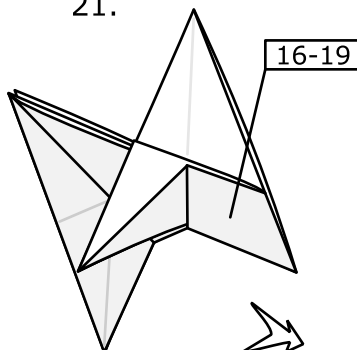
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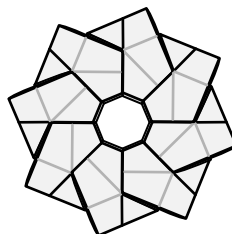
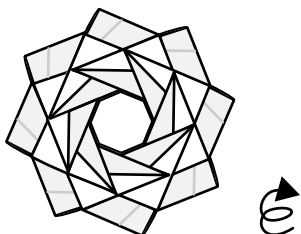
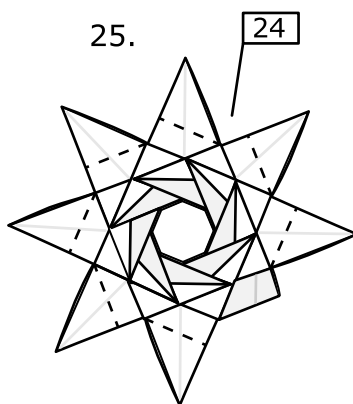
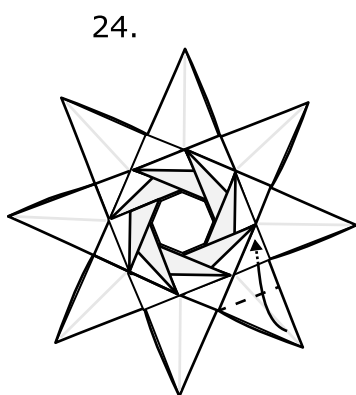
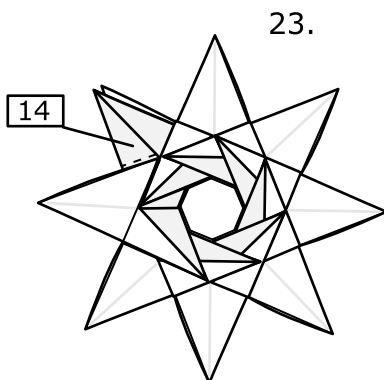
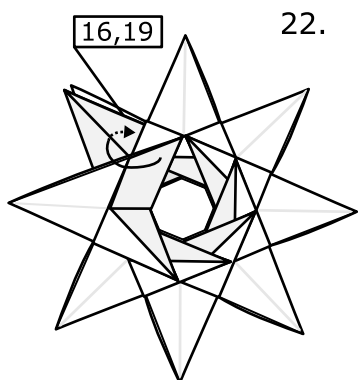


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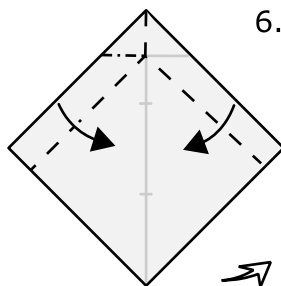
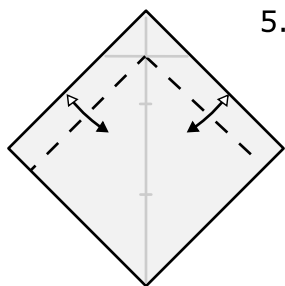
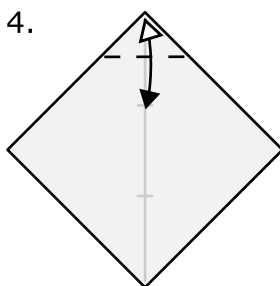
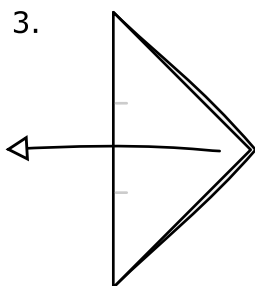
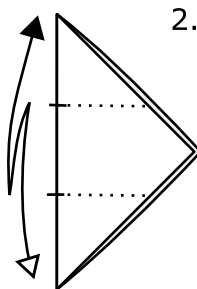
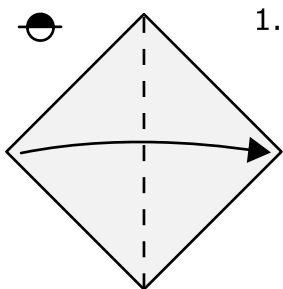
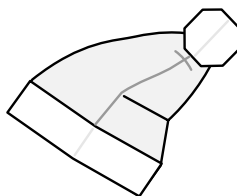


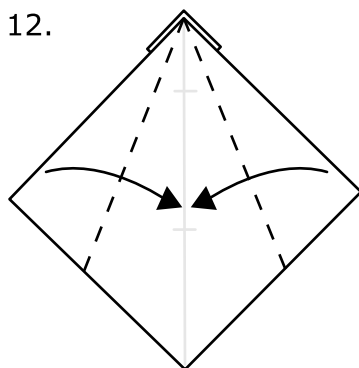
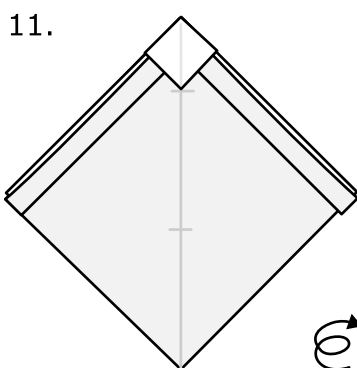
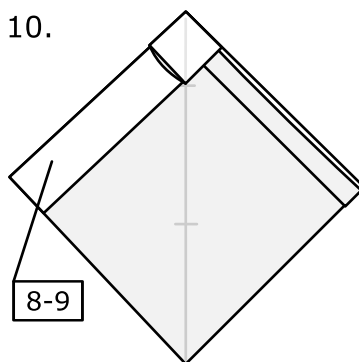
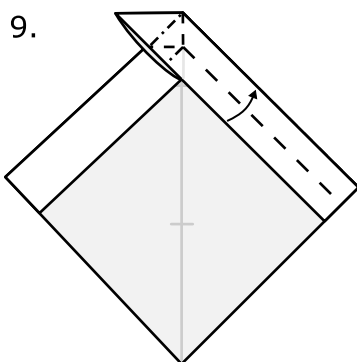
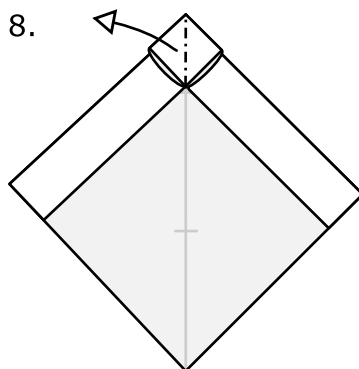
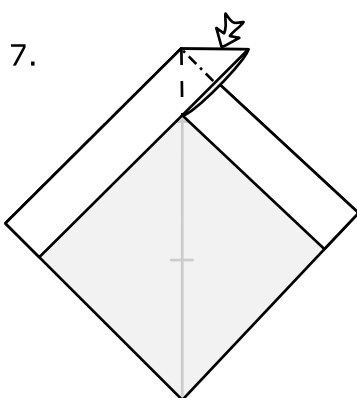


SANTA'S CAP

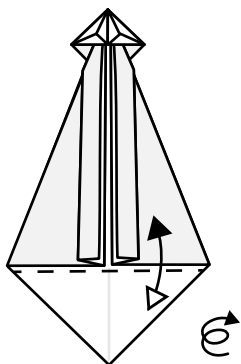
KAPA DJEDA B.

Design: Sanja Srbfjinović Čuček

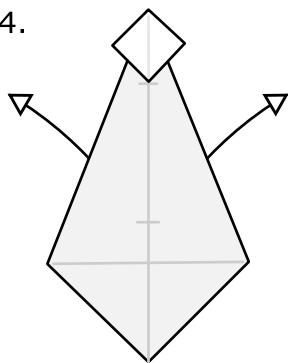




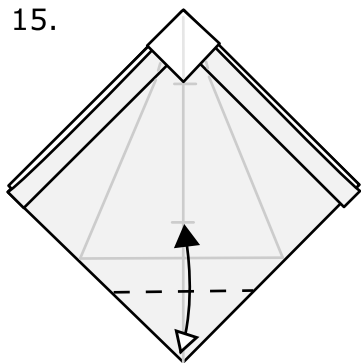
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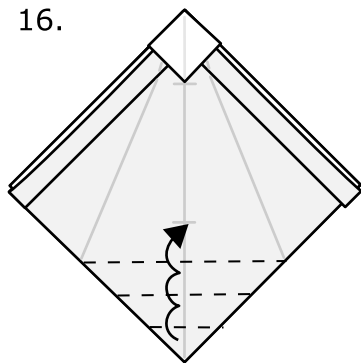
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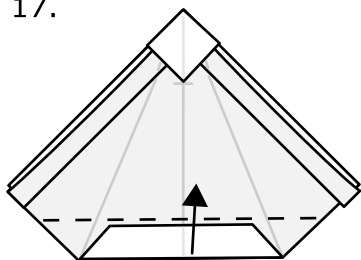
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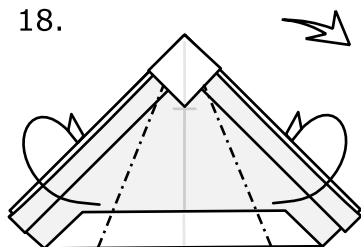
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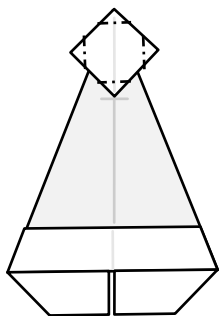
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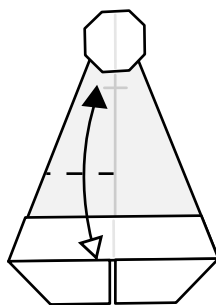
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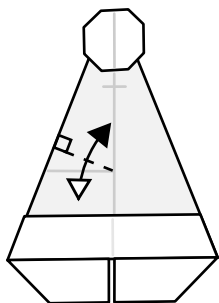
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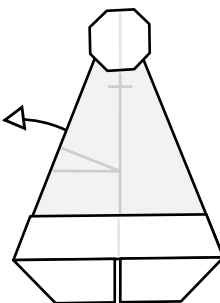
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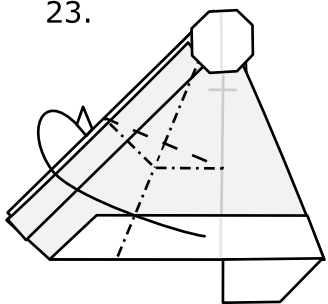
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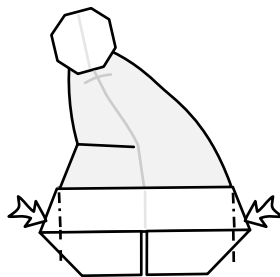
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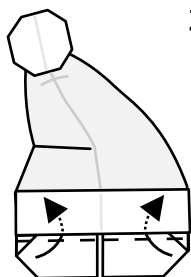


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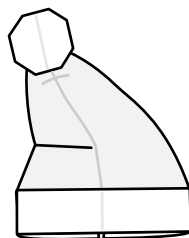


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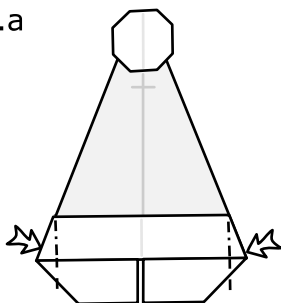


25.



Simpler finishing:
24 a - 25.a.

24.a



25.a

