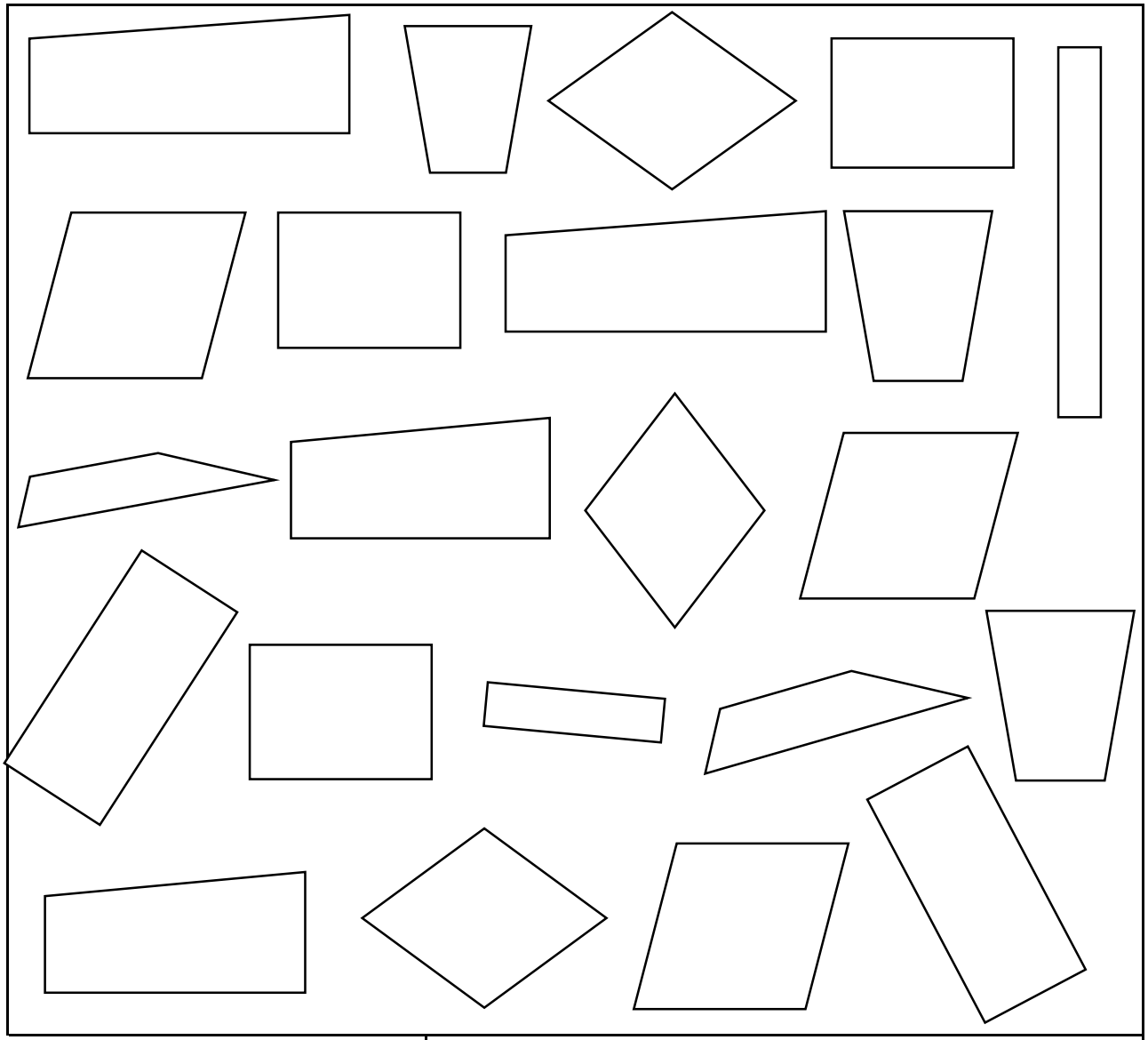
8-9 YEARS | WEEK 01

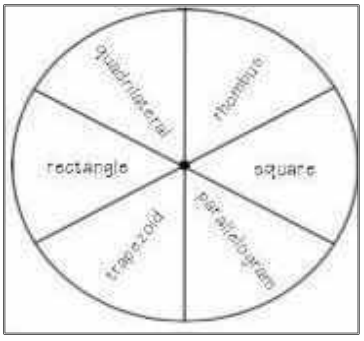
Math - Geometry

1. Quadrilaterals game
2. Reflections
3. 3D shape
4. Shape building
5. Make the given shape
6. 2D shapes - Identify
7. Shapes symmetry
8. Alphabet symmetry
9. Draw lines
10. Curved lines
11. Solve the puzzle
12. Solve the puzzle
13. Solve the puzzle
14. Solve the puzzle
15. Find the area - Rectangle
16. Find the area - Right-angled triangle
17. Coordinating the coordinates - Shapes
18. Coordinating the coordinates
19. Coordinating the coordinates
20. Coordinating the coordinates

M: Geometry - Quadrilaterals game

Let us have some fun with quadrilaterals. Quadrilaterals have four sides. Play a little game here with your friend. Cut the paper along the dotted line to use it as a spinner. Use two different colours to colour the shapes below. Whoever gets more number of the same quadrilateral will win.



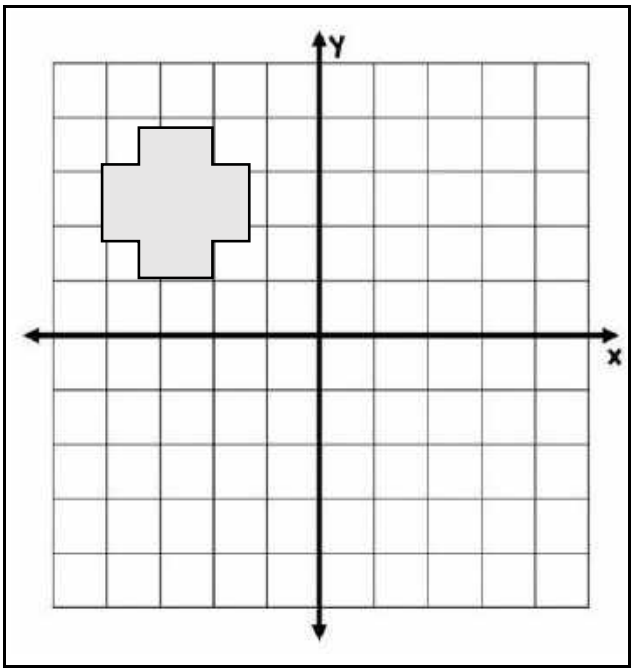


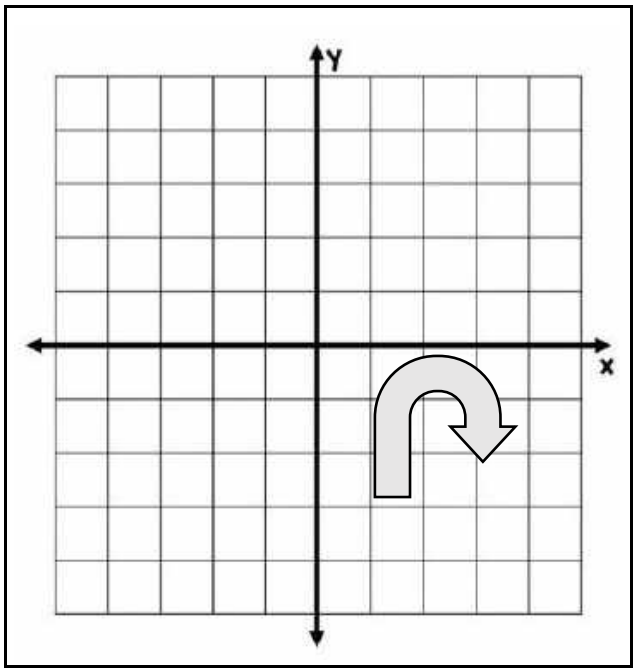
Here's how to play!

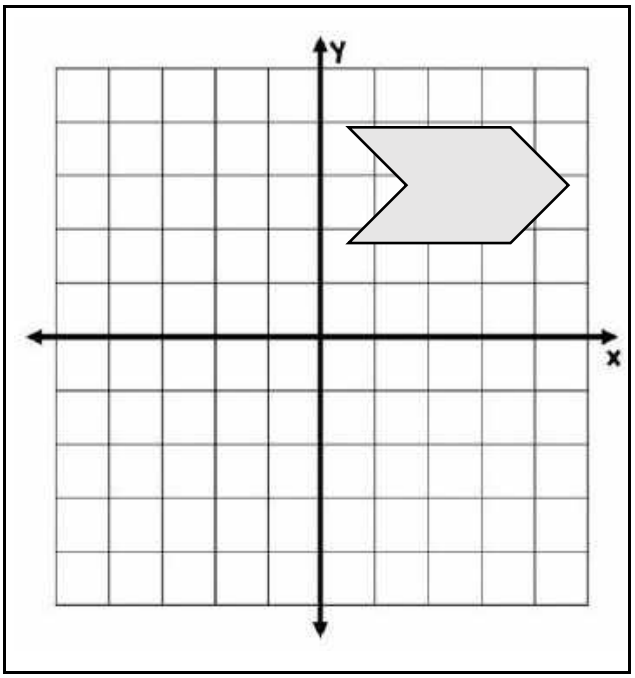
1. Ask your friend to hold the paperclip in the centre of the spinner using a pencil. Spin the paperclip so that it stands on the name of the shape. Call out the name and colour it.
2. Now it is your turn.
3. If there is no shape of that type to colour are left, then skip a turn.
4. Continue the game until all the same shapes are coloured. The person who got the most shapes number of shapes wins!

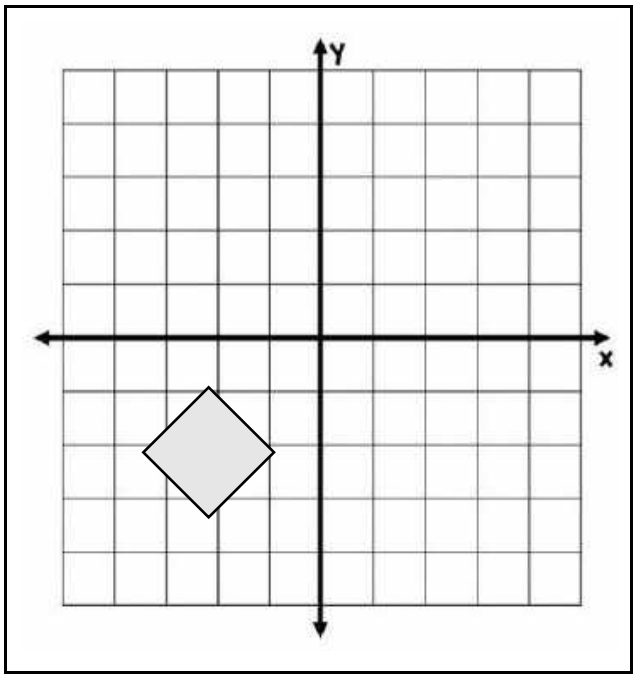
M: Geometry - Reflections

A reflection is a transformation resulting in flip of a figure. Draw the reflections given below in mirror lines.







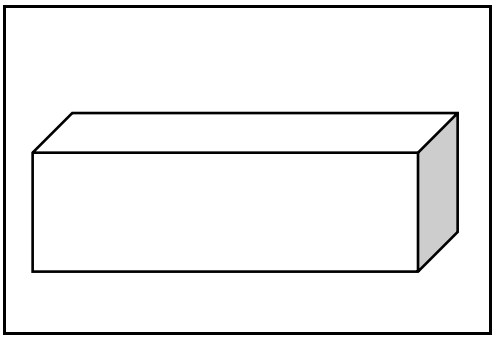


Answer Key: Draw the reflections on their diagonally opposite side.

M: Geometry - 3D shape

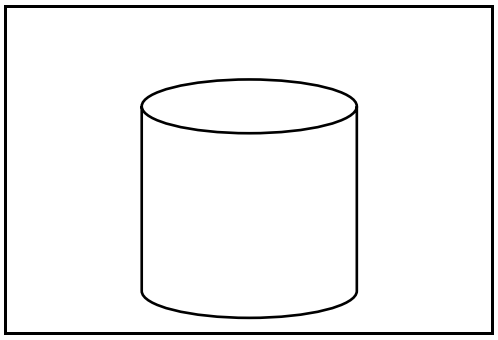
Do you know when we open 3D shapes, they have faces, vertices and edges as well? Here are few common 3D shapes, recall their names and tell us what properties they possess?

a.



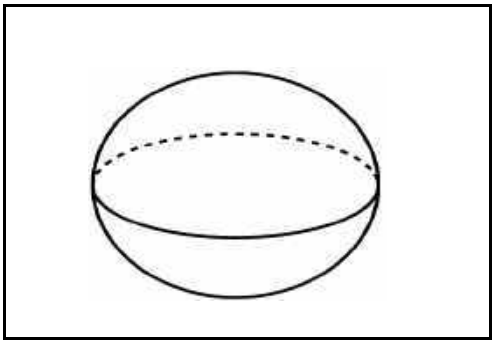
faces_____ edges_____
vertices_____

b.



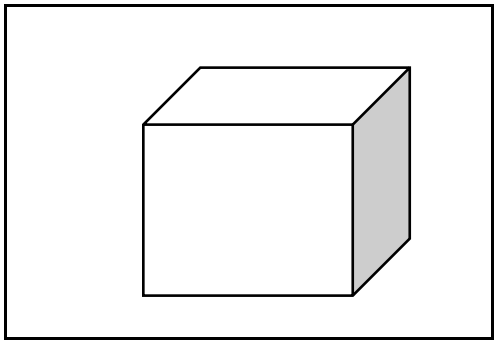
faces_____ edges_____
vertices_____

c.



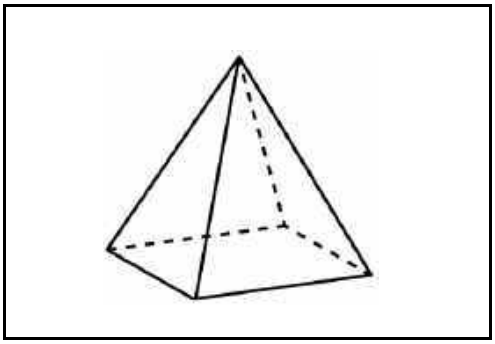
faces_____ edges_____
vertices_____

d.



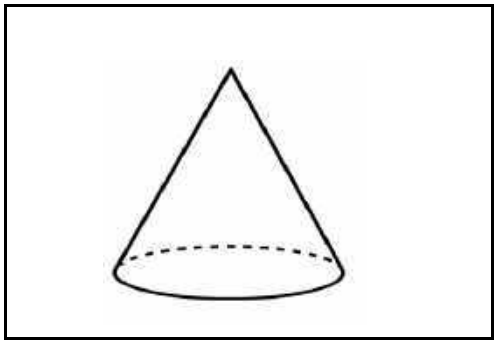
faces_____ edges_____
vertices_____

e.



faces_____ edges_____
vertices_____

f.

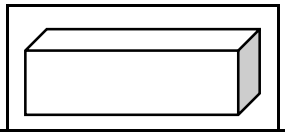
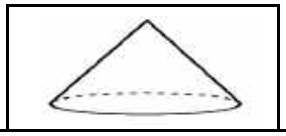
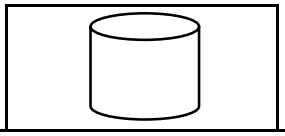


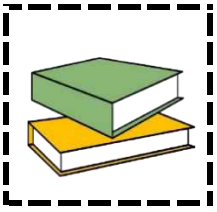
faces_____ edges_____
vertices_____

Answer Key: a. F-6 E-12 V-8 b.F-3 E-2 V-0 c. F-1 E-0 V-0 d. F-6 E-12 V-8 e. F-5 E-2 V-6 f. F-2 E-1 V-1

M: Geometry - Shape building

The shapes in geometry make up a lot of things in real life. Few things that we come across in real life are given below. Cut them along the dotted line and paste them in the columns where they resemble the geometrical shape.







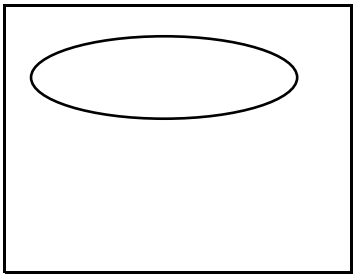


Answer Key: Cuboid-books, oven, phone Cone-birthday hat, ice cream cones, x-mas tree cylinder- coke, batteries oxygen cylinder

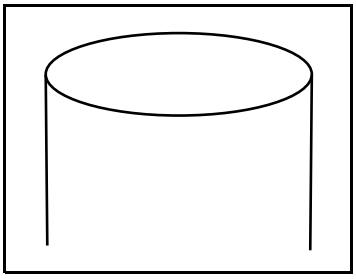
M: Geometry- Make the given shape

Hey folks, let us learn to make a 3D shape today. Follow the steps given below to draw a 3D cylinder and colour it.

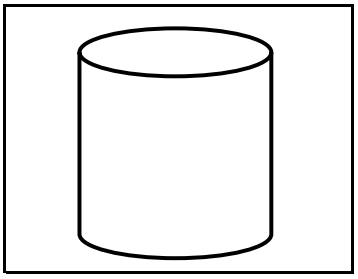
Step 1: Draw a pancake as shown below.



Step 2: Add table legs as shown below.



Step 3: Complete the diagram by connecting the bottom borders with a smile.

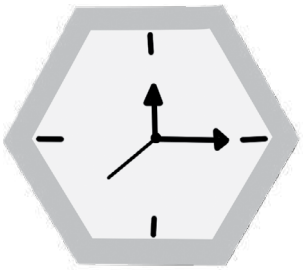


Identify

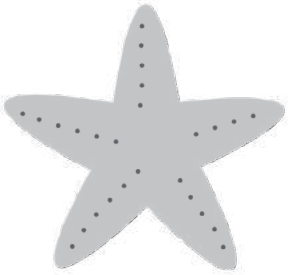
Identify the real life 2-D shapes which are associated with the given images and write their names below the images.

Help box:

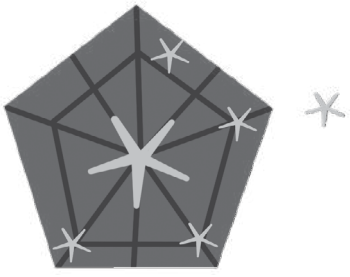
Rectangle, Star, Triangle, Pentagon, Hexagon, Circle

1. 

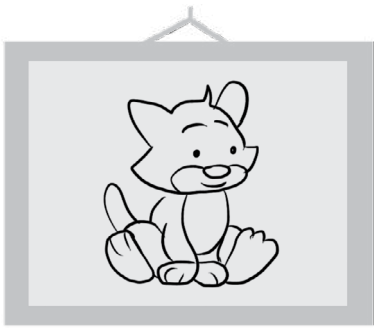
_____

2. 

_____

3. 

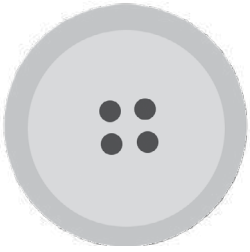
_____

4. 

_____

5. 

_____

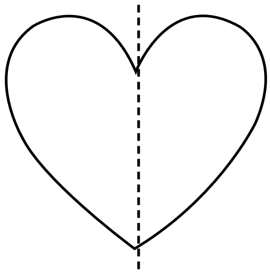
6. 

_____

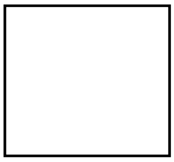
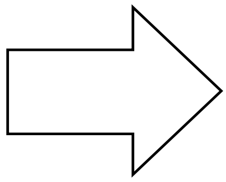
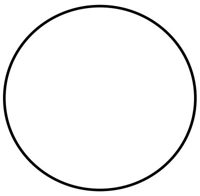
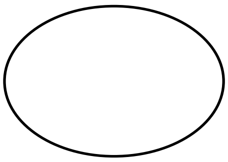
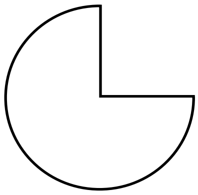
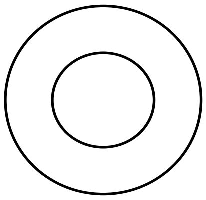
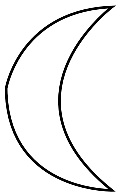
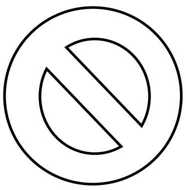
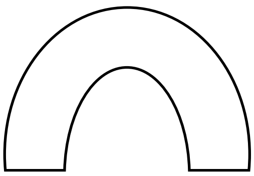
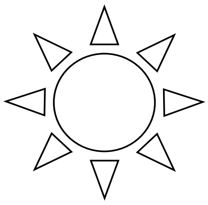
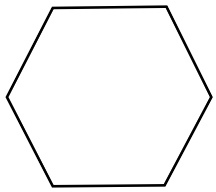
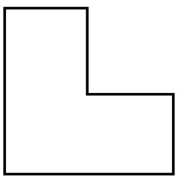
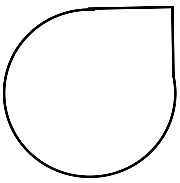
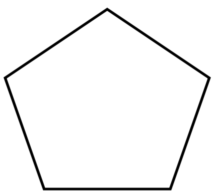
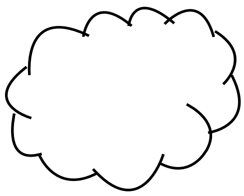
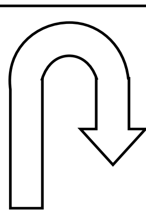
SHAPES SYMMETRY

A shape has symmetry when two sides look the same.
A shape is symmetrical if it can be folded in half and the two sides are mirror images of each other.

A line of symmetry is a line that seperates the shape into two parts that are the same shape and size.



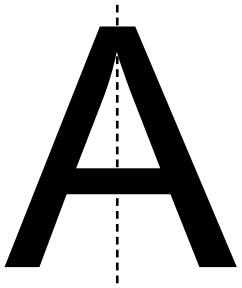
Directions : Determine if each shape has a line of symmetry. If it has a line of symmetry, draw it and write **Yes** in the box. If it does not have a line of symmetry, write **No** in the box.

									
Horizontal		Horizontal		Horizontal		Horizontal		Horizontal	
Vertical		Vertical		Vertical		Vertical		Vertical	
									
Horizontal		Horizontal		Horizontal		Horizontal		Horizontal	
Vertical		Vertical		Vertical		Vertical		Vertical	
									
Horizontal		Horizontal		Horizontal		Horizontal		Horizontal	
Vertical		Vertical		Vertical		Vertical		Vertical	
									
Horizontal		Horizontal		Horizontal		Horizontal		Horizontal	
Vertical		Vertical		Vertical		Vertical		Vertical	

ALPHABET SYMMETRY

A shape has symmetry when two sides look the same.
A shape is symmetrical if it can be folded in half and the two sides are mirror images of each other.

A line of symmetry is a line that seperates the shape into two parts that are the same shape and size.



Directions : Determine if each shape has a line of symmetry. If it has a line of symmetry, draw it and write **Yes** in the box. If it does not have a line of symmetry, write **No** in the box.

B	C	D	E	F
Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Vertical	Vertical	Vertical	Vertical	Vertical

G	H	I	J	K
Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Vertical	Vertical	Vertical	Vertical	Vertical

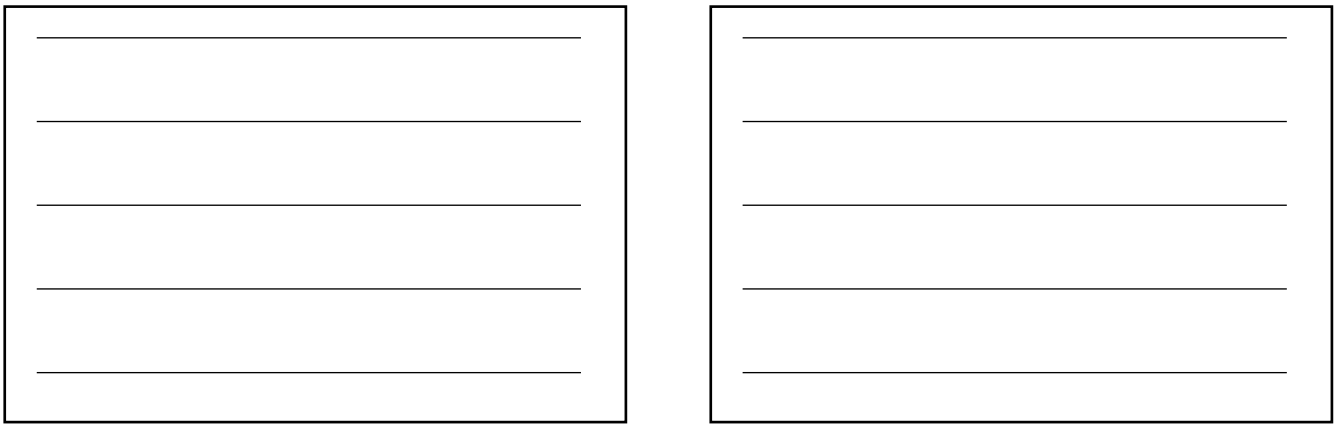
L	M	N	O	P
Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Vertical	Vertical	Vertical	Vertical	Vertical

Q	R	S	T	U
Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Vertical	Vertical	Vertical	Vertical	Vertical

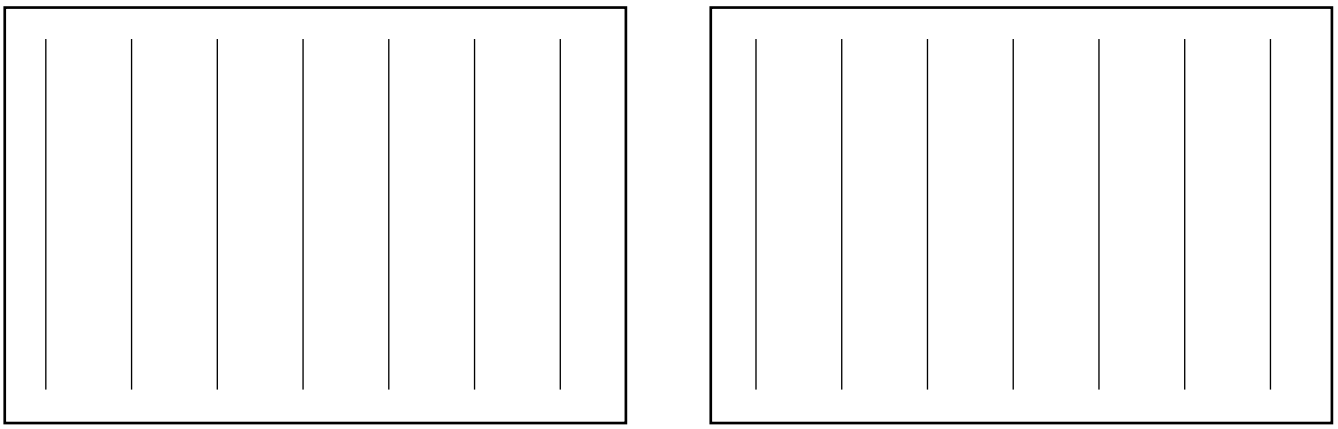
V	W	X	Y	Z
Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Vertical	Vertical	Vertical	Vertical	Vertical

Draw lines

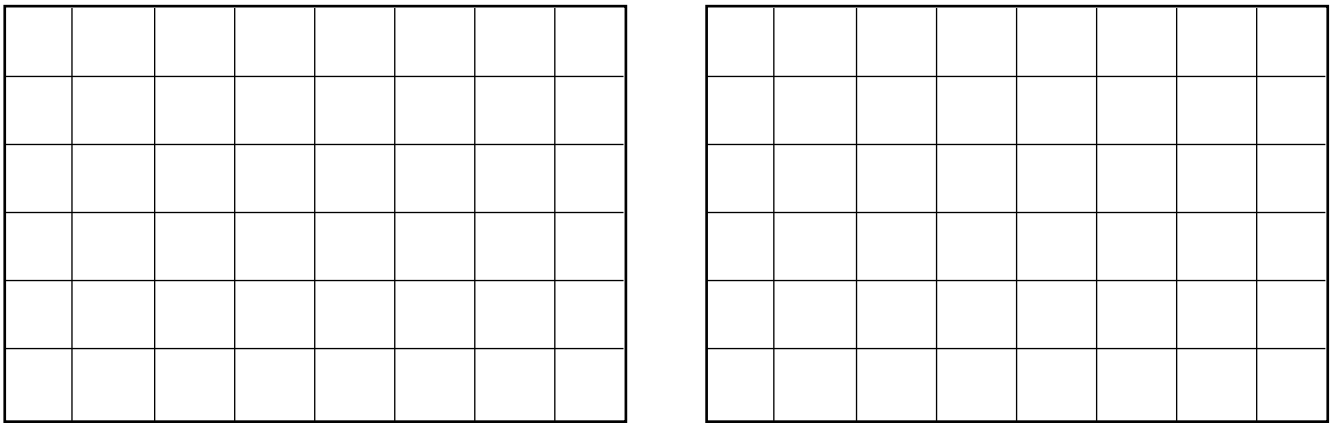
A. Draw vertical lines using toothpicks.



B. Draw horizontal lines using toothpicks.



C. Draw slanting lines using earbuds.



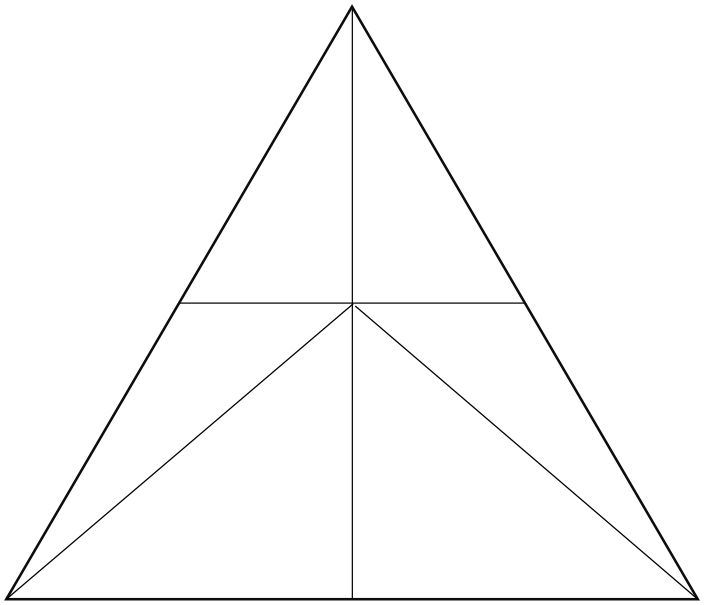
Curved lines

A. Paste ribbons in the given boxes in the form of different curved lines.

SOLVE THE PUZZLE

Find the correct answers for the puzzles given below.

1 Count the number of triangles in the given shape.



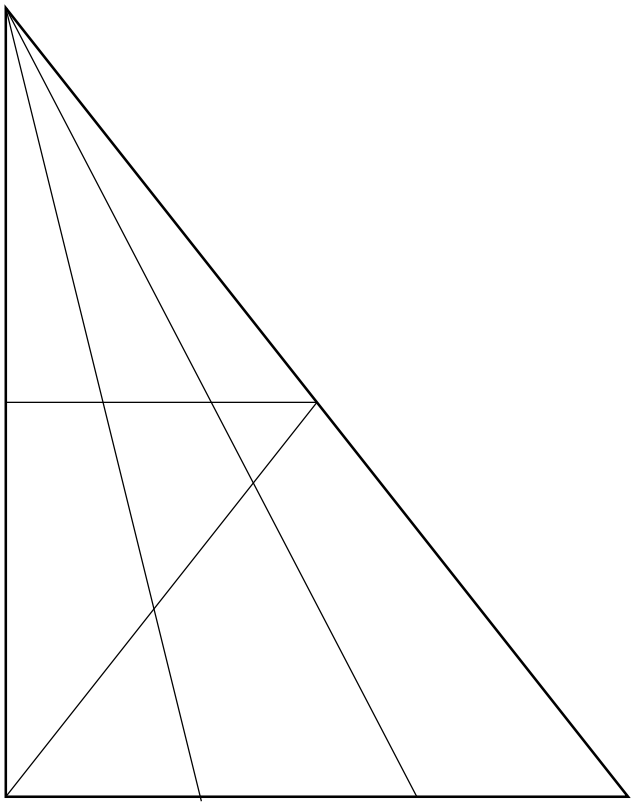
a. 13

b. 15

c. 12

d. 9

2



Count the number of triangles in the given shape.

a. 24

b. 18

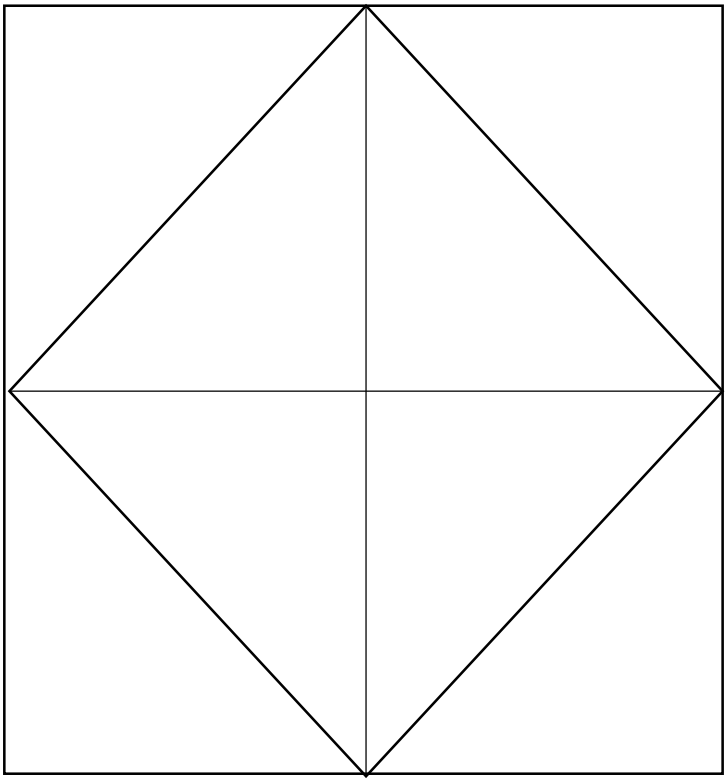
c. 21

d. 16

SOLVE THE PUZZLE

Find the correct answers for the puzzles given below.

1 Count the number of triangles in the given shape.



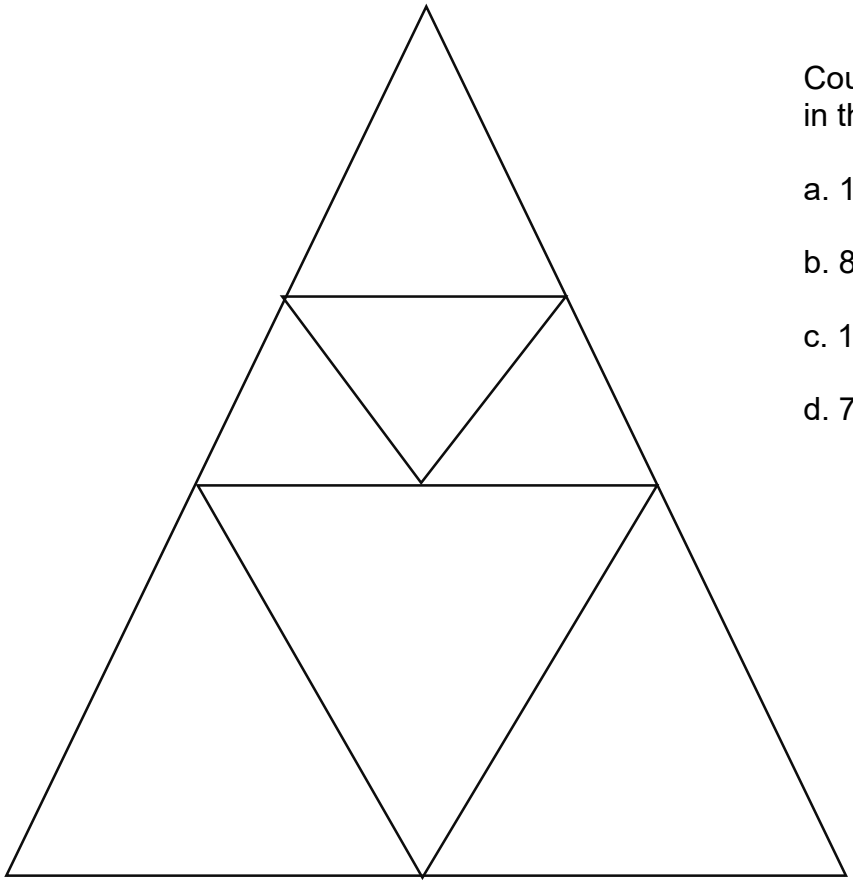
a. 10

b. 14

c. 11

d. 12

2



Count the number of triangles in the given shape.

a. 10

b. 8

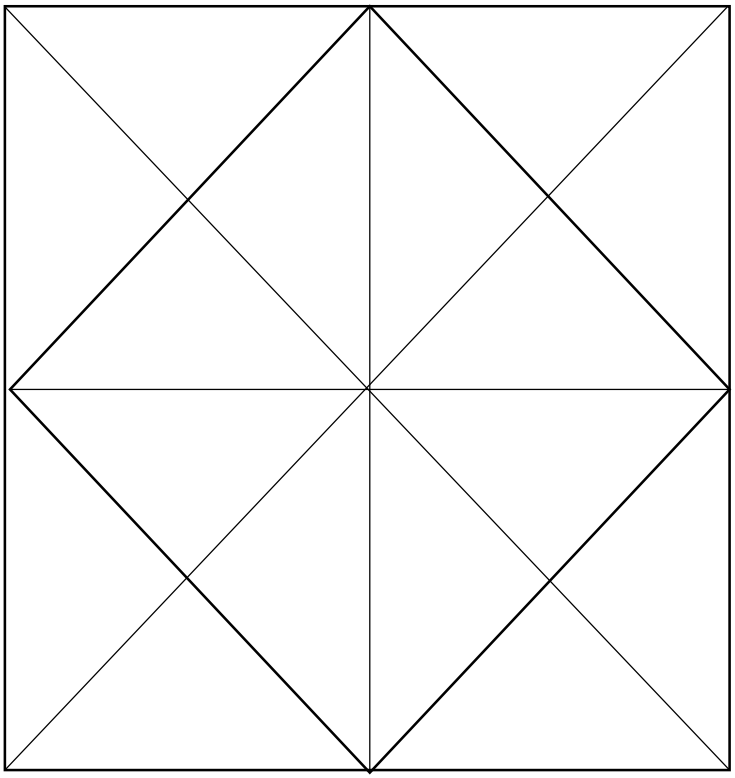
c. 12

d. 7

SOLVE THE PUZZLE

Find the correct answers for the puzzles given below.

1 Count the number of squares in the given shape.



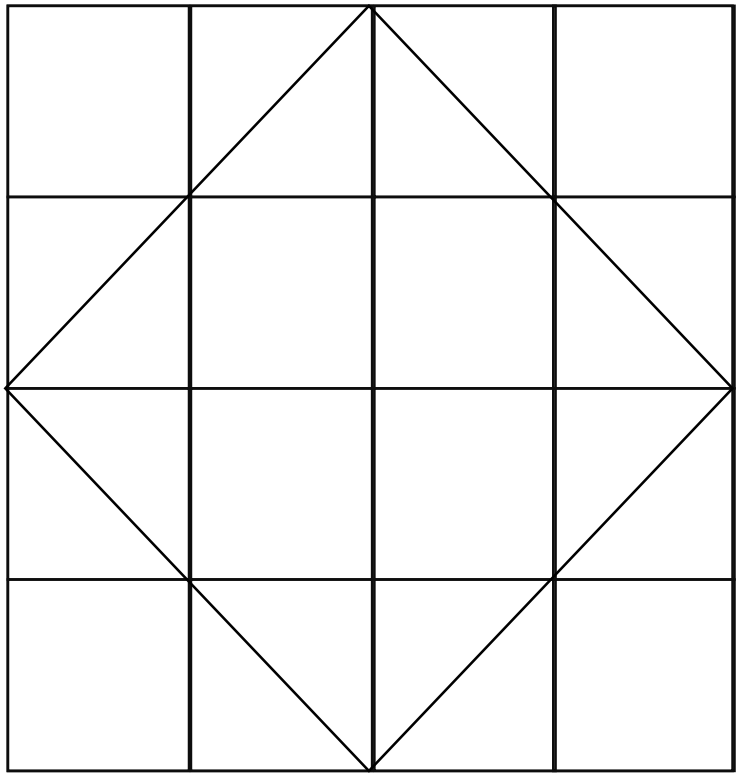
a. 14

b. 10

c. 8

d. 12

2



Count the number of triangles in the given shape.

a. 28

b. 32

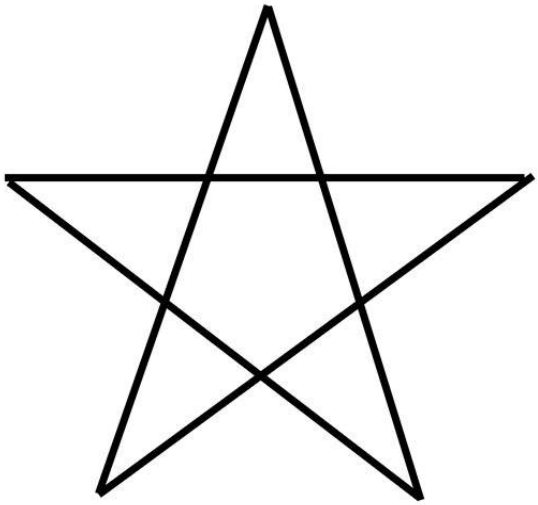
c. 35

d. 26

SOLVE THE PUZZLE

Find the correct answers for the puzzles given below.

1 Count the number of triangles in the given shape.



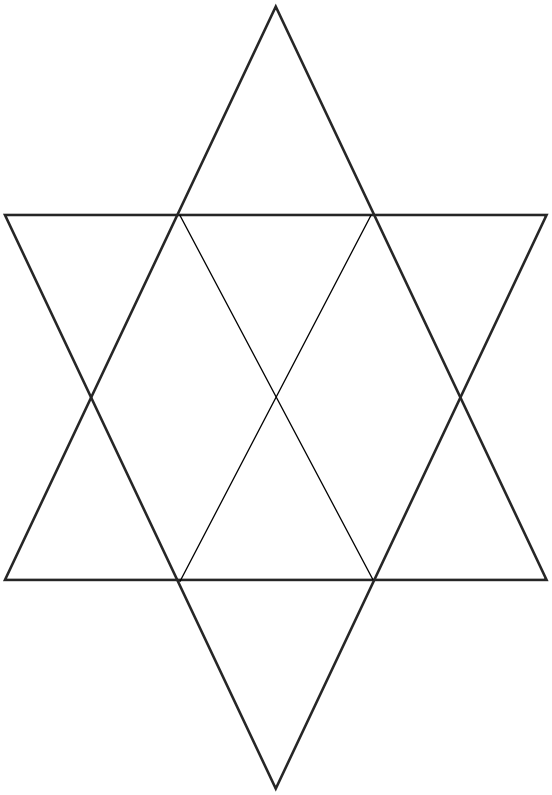
a. 5

b. 6

c. 10

d. 8

2



Count the number of triangles in the given shape.

a. 15

b. 12

c. 11

d. 13

Find the area

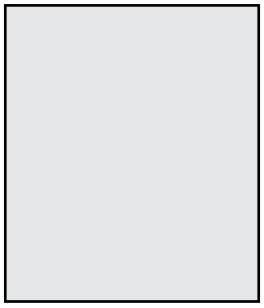
Find the area of the following rectangles (Formula = L × B)

1.

42 in.

21 in.

2.



84 in.

80 in.

3.

95 ft

36 ft

4.

41 ft

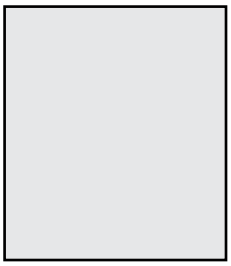
87 ft

5.

68 mm

49 mm

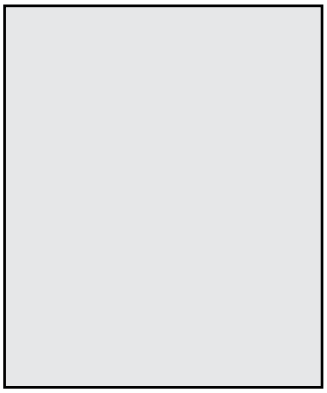
6.



77 mm

72 mm

7.



99 in.

90 in.

8.

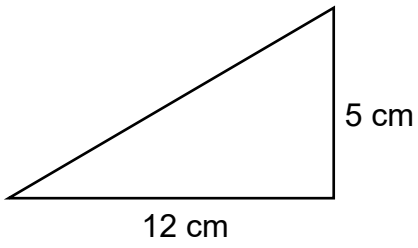
39 in.

85 in.

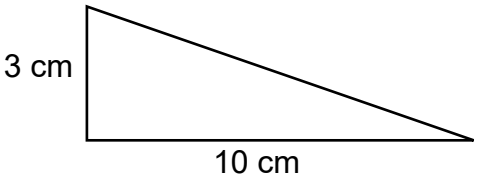
Find the area

Find the area of the following right angled triangles (Formula = Side × Side /2)

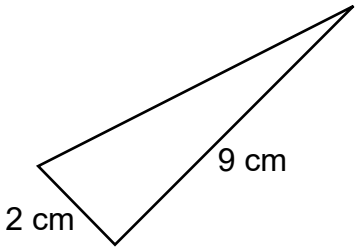
1.



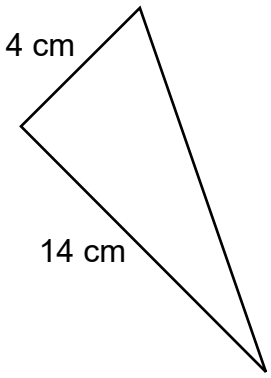
2.



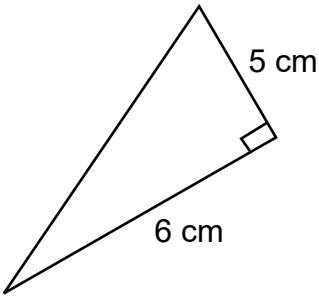
3.



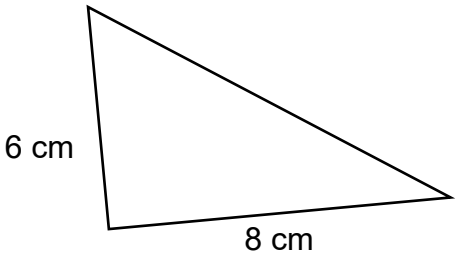
4.



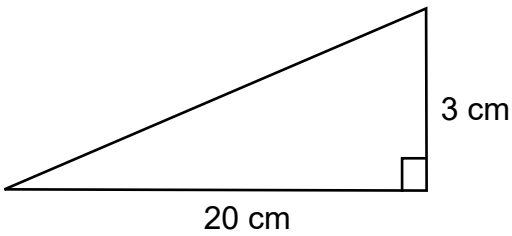
5.



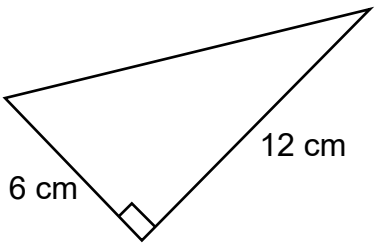
6.



7.

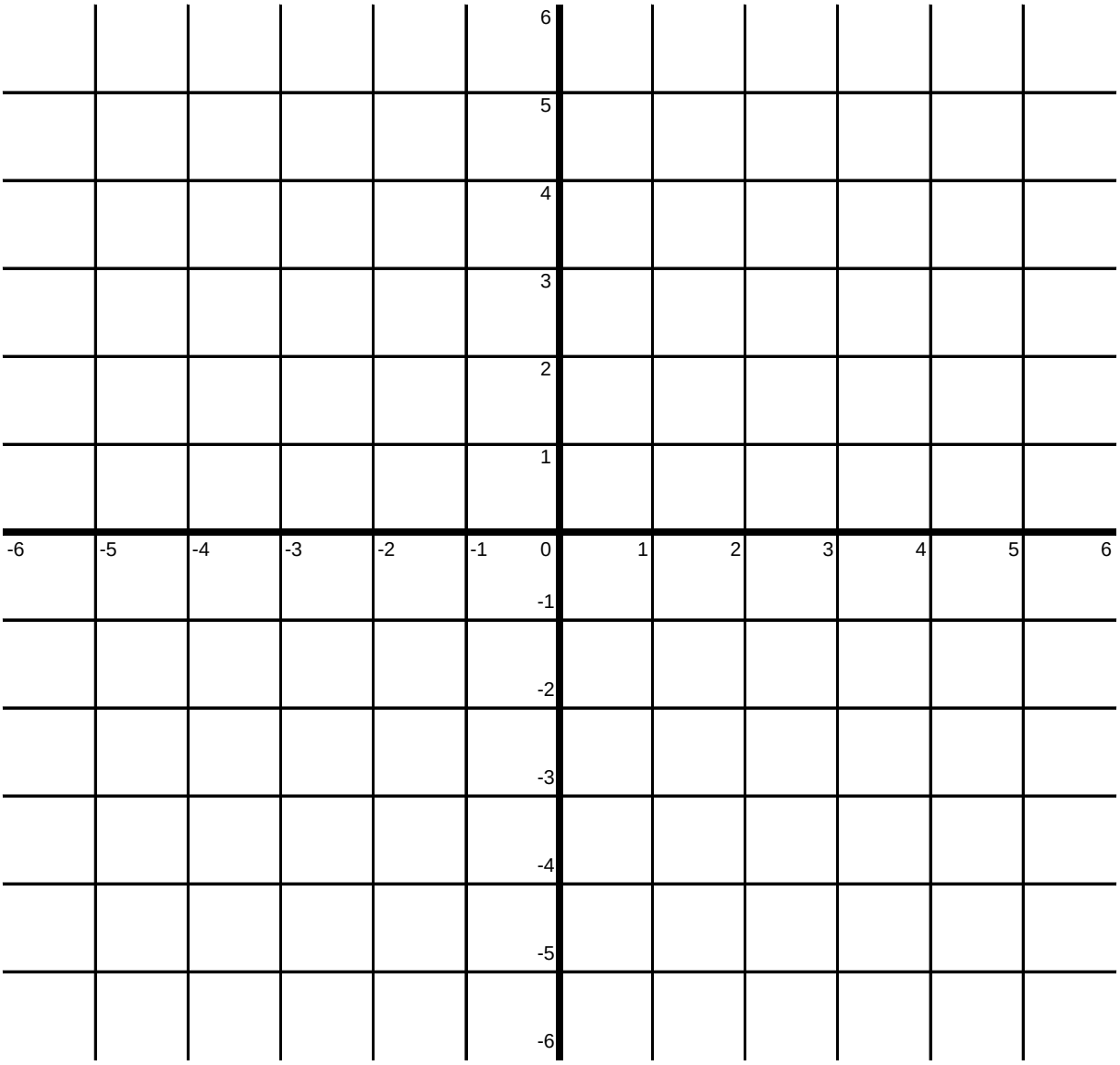


8.



COORDINATING THE COORDINATES

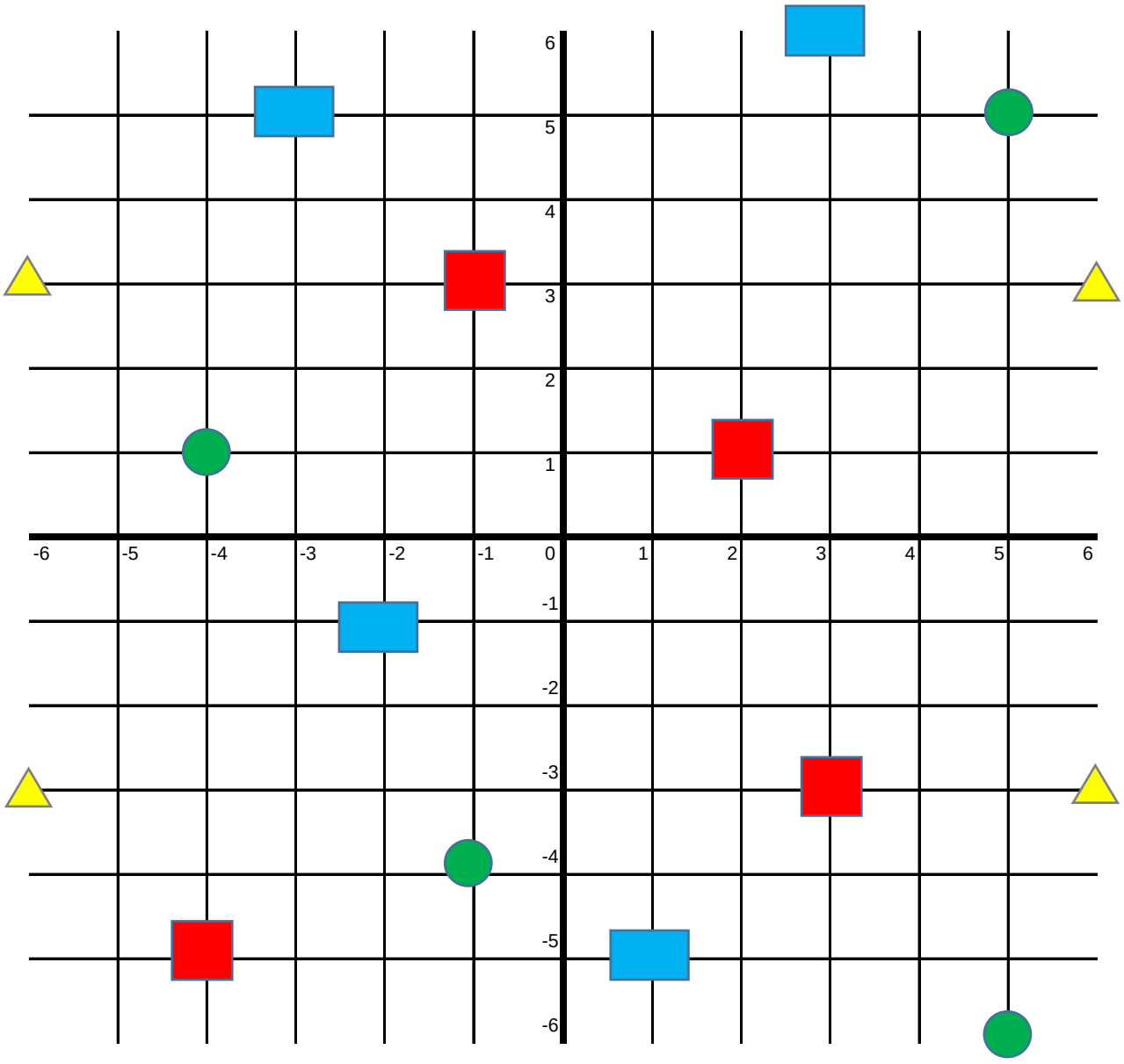
Coordinates uniquely define a position by its horizontal and vertical directions. Can you draw the shapes given below in their correct places specified by coordinates?



YELLOW TRIANGLE	(6 , 3)	(6 , -3)	(-6 , 3)	(-6 , -3)
BLUE RECTANGLE	(2 , 5)	(2 , -5)	(-2 , 5)	(-2 , -5)
RED SQUARE	(4 , 6)	(4 , -6)	(-4 , 6)	(-4 , -6)
GREEN CIRCLE	(3 , 2)	(3 , -2)	(-3 , 2)	(-3 , -2)

COORDINATING THE COORDINATES

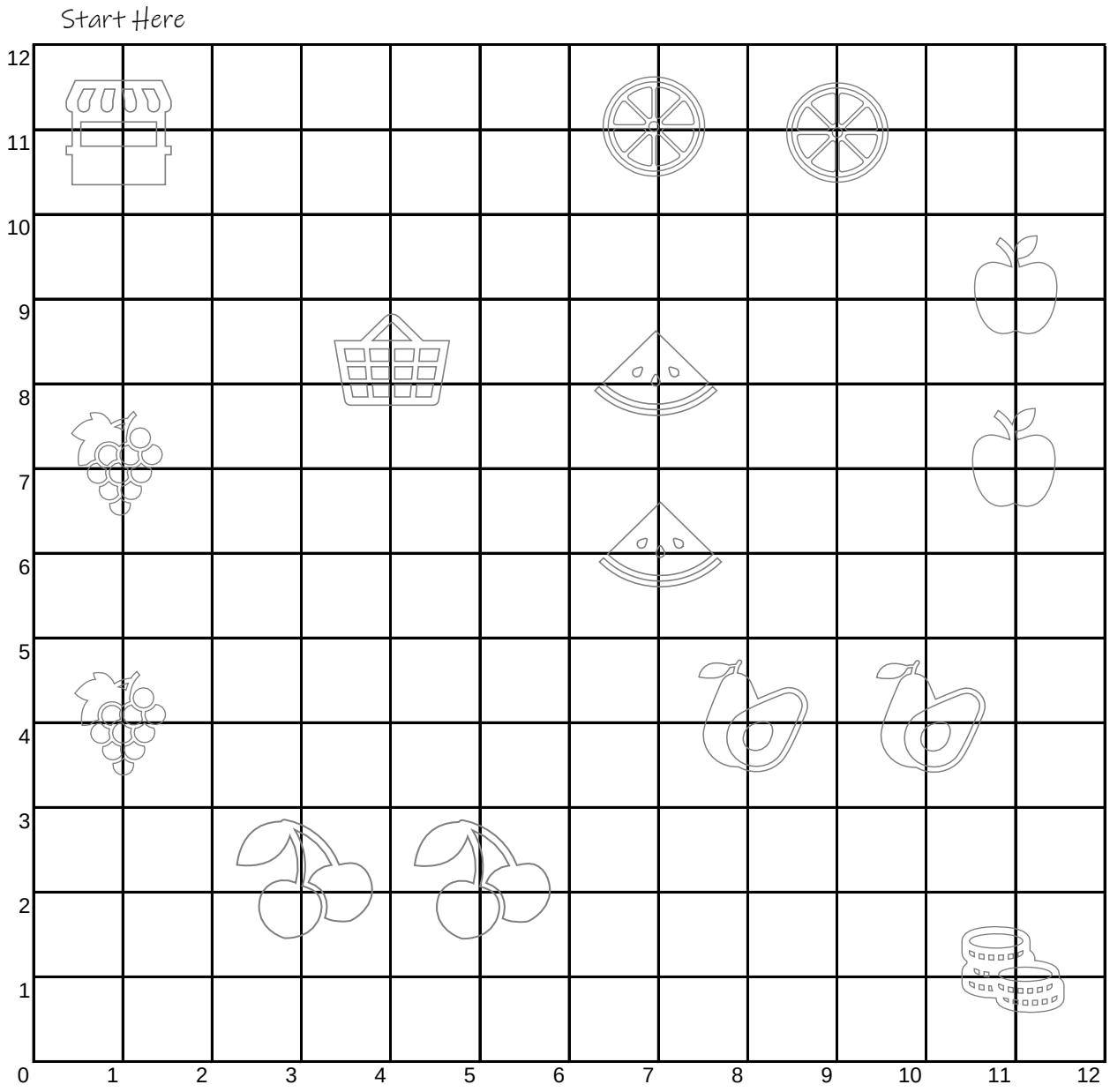
Coordinates uniquely define a position by its horizontal and vertical directions. Can you write the coordinates for the shapes given below in the coordinate plane?



	(6 , 3)	(6 , -3)	(-6 , 3)	(-6 , -3)
YELLOW TRIANGLE				
BLUE RECTANGLE				
RED SQUARE				
GREEN CIRCLE				

COORDINATING THE COORDINATES

Coordinates uniquely define a position by its horizontal and vertical directions. Can you find the coordinates of the given shapes on the map? Draw the path in sequence. One has been completed for you.

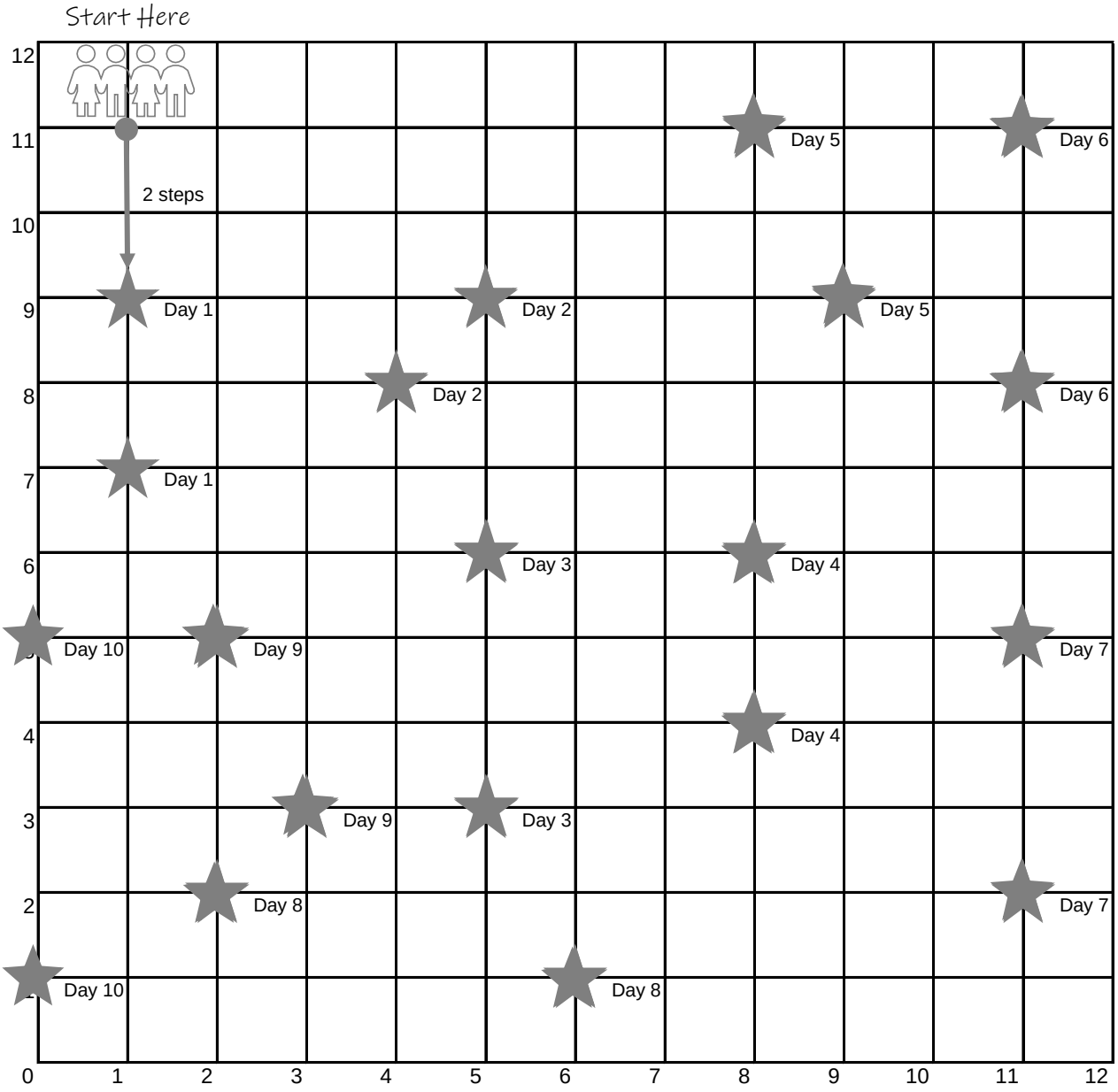


Fruit shop			Watermelons		
Fruit basket			Oranges		
Grapes			Apples		
Cherries			Avocados		

Count coins & Pay (,)

COORDINATING THE COORDINATES

Your friends are visiting you for ten days, and you made a plan to take them around your town. Can you find the coordinates of the given places to see on the map shown by the stars? Draw the path in sequence. Measure the total distance covered. One has been completed for you.



Day 1			Day 6		
Day 2			Day 7		
Day 3			Day 8		
Day 4			Day 9		
Day 5			Day 10		

Total Distance Covered