Coundon Primary School

Year 3

Maths Home Learning Pack

Week Commencing 22.06.20

*Although we have uploaded the relevant worksheets, there is no need to print them. our child can work directly from the screen.

Lesson 1

Key Skills:

I can identify parallel and perpendicular lines.

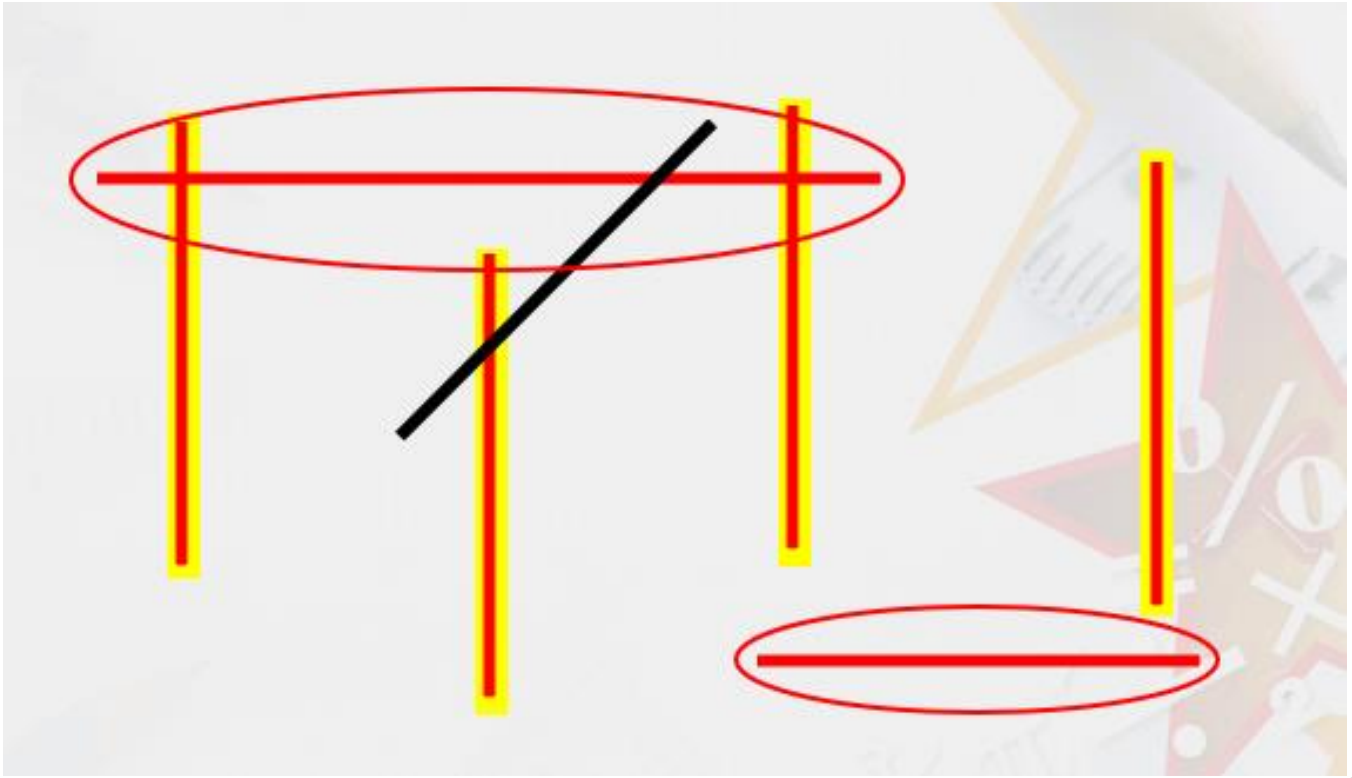
Warm-up

Can you identify the horizontal and vertical lines?

Warm-up

Answers

The horizontal lines have been circled and the vertical lines have been highlighted.



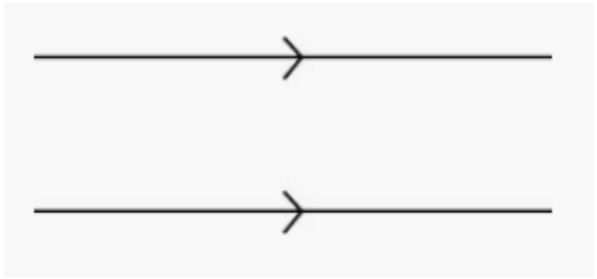
How did you do?

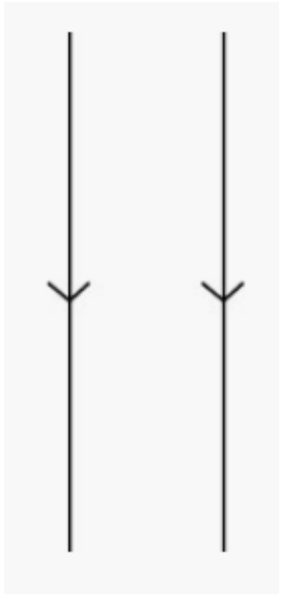
Key Skills:

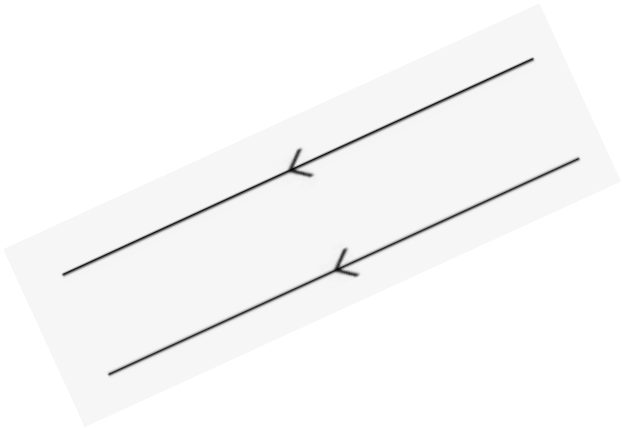
I can identify parallel and perpendicular lines.

Parallel Lines

Parallel lines are lines that will never meet, no matter how long they are.



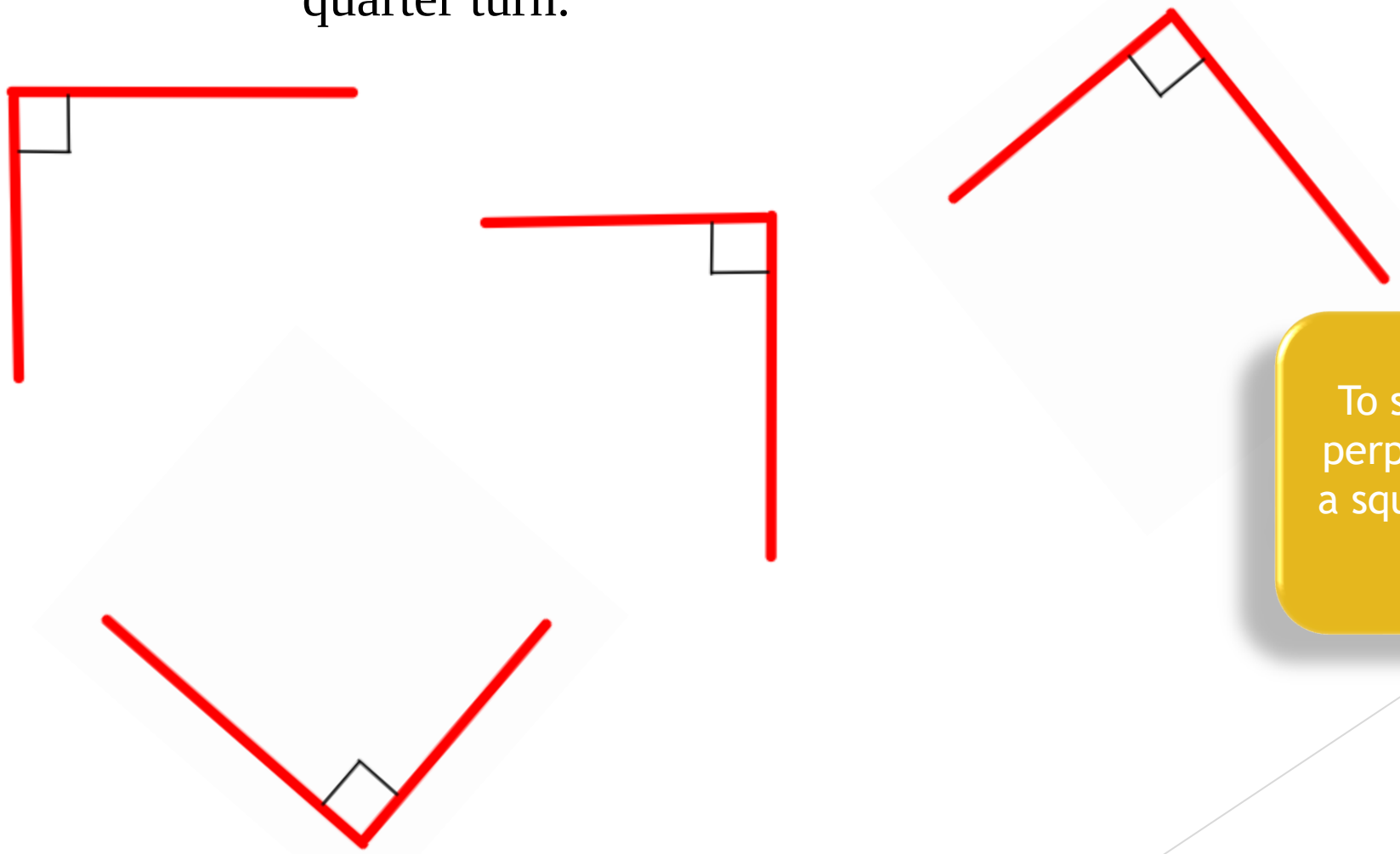




To show that lines are parallel, we use arrows pointing in the same direction.

Perpendicular Lines

Perpendicular lines meet at right angles – this is also a quarter turn.

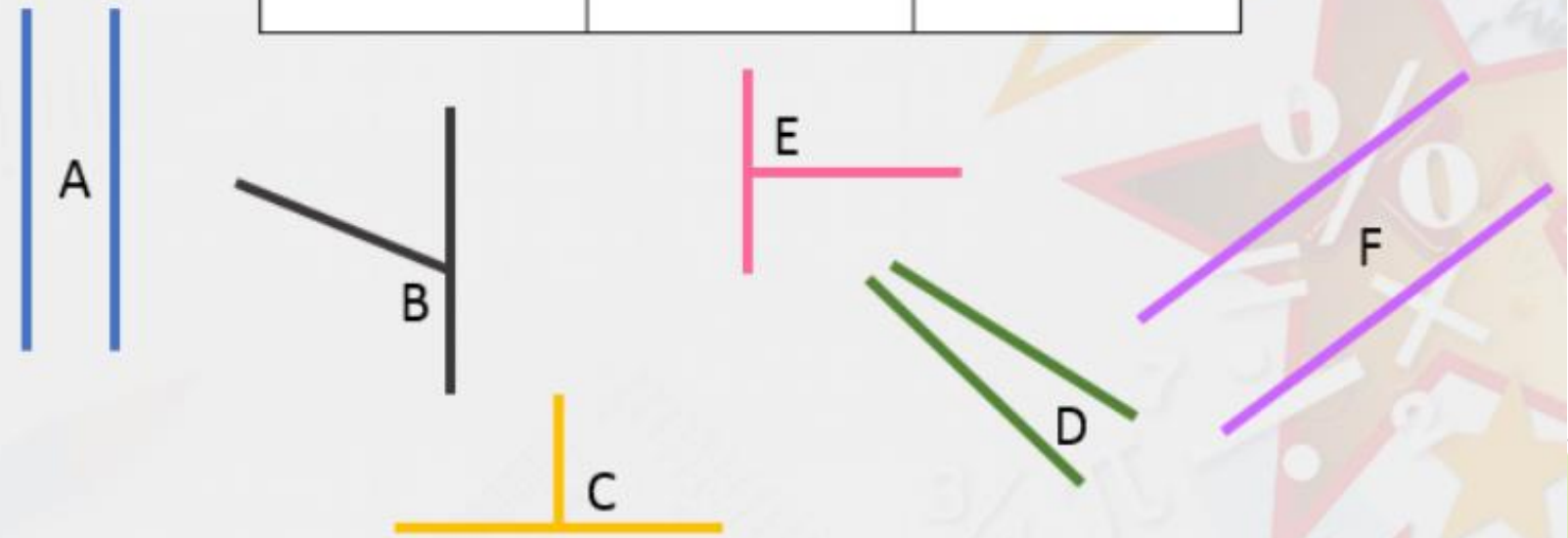


To show that lines are perpendicular, we draw a square to show a right angle.

Learning

Identify which shapes are parallel, perpendicular of neither.

Parallel	Perpendicular	Neither

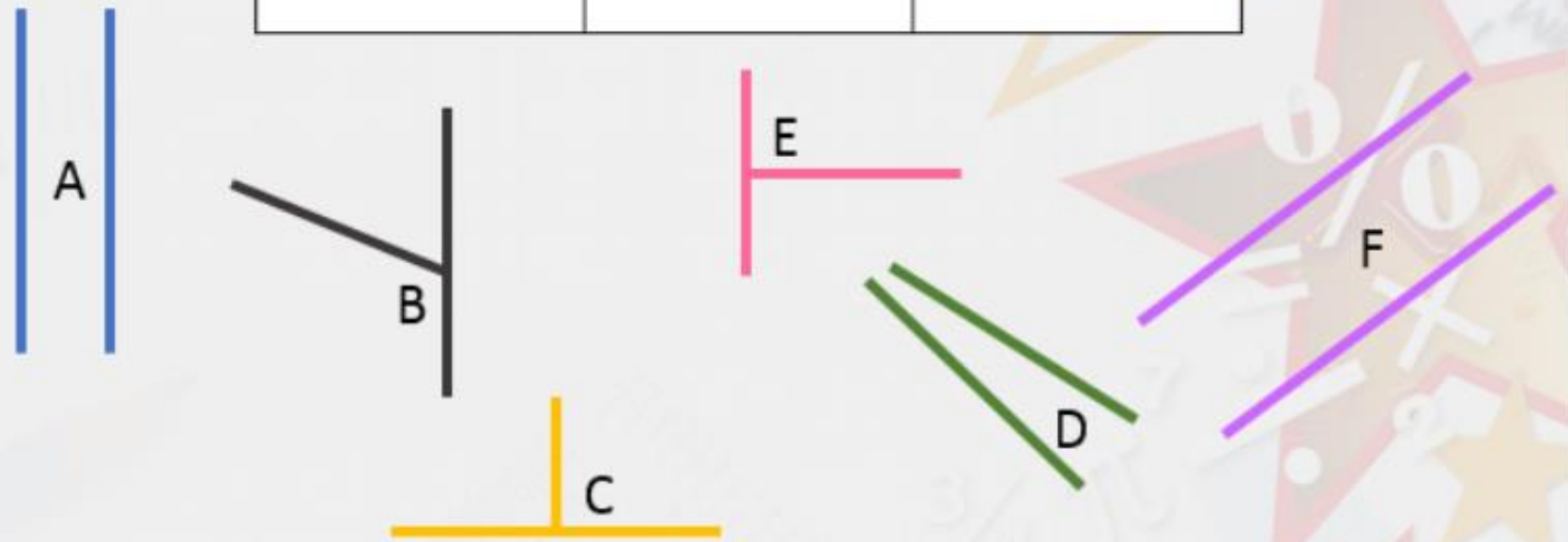


Learning

Answers

Identify which shapes are parallel, perpendicular of neither.

Parallel	Perpendicular	Neither
A F	E C	D B

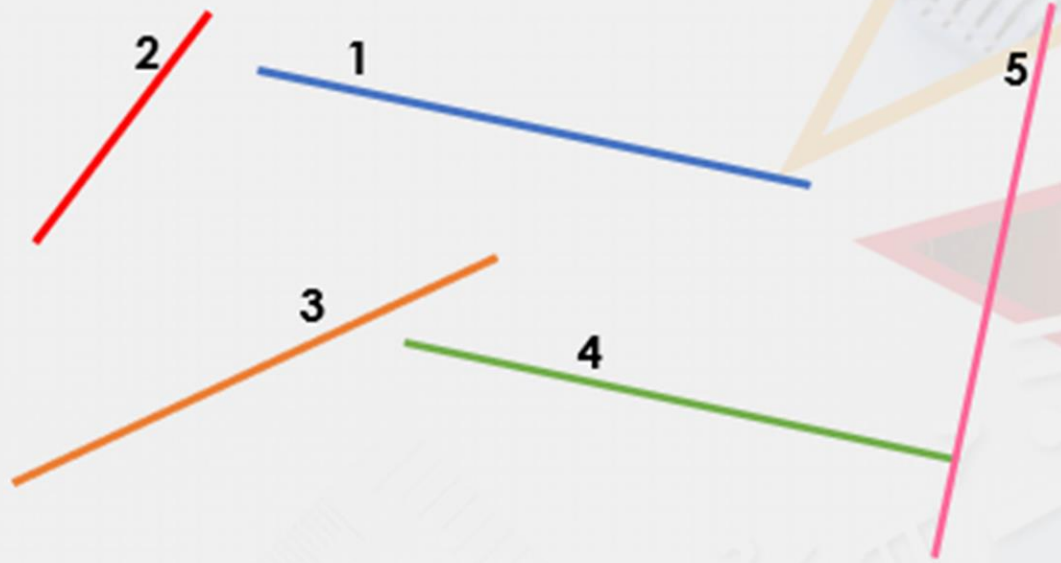


Learning

Complete the sentences below.

Line 1 is parallel to line ____ .

Line 4 is _____ to line 5.



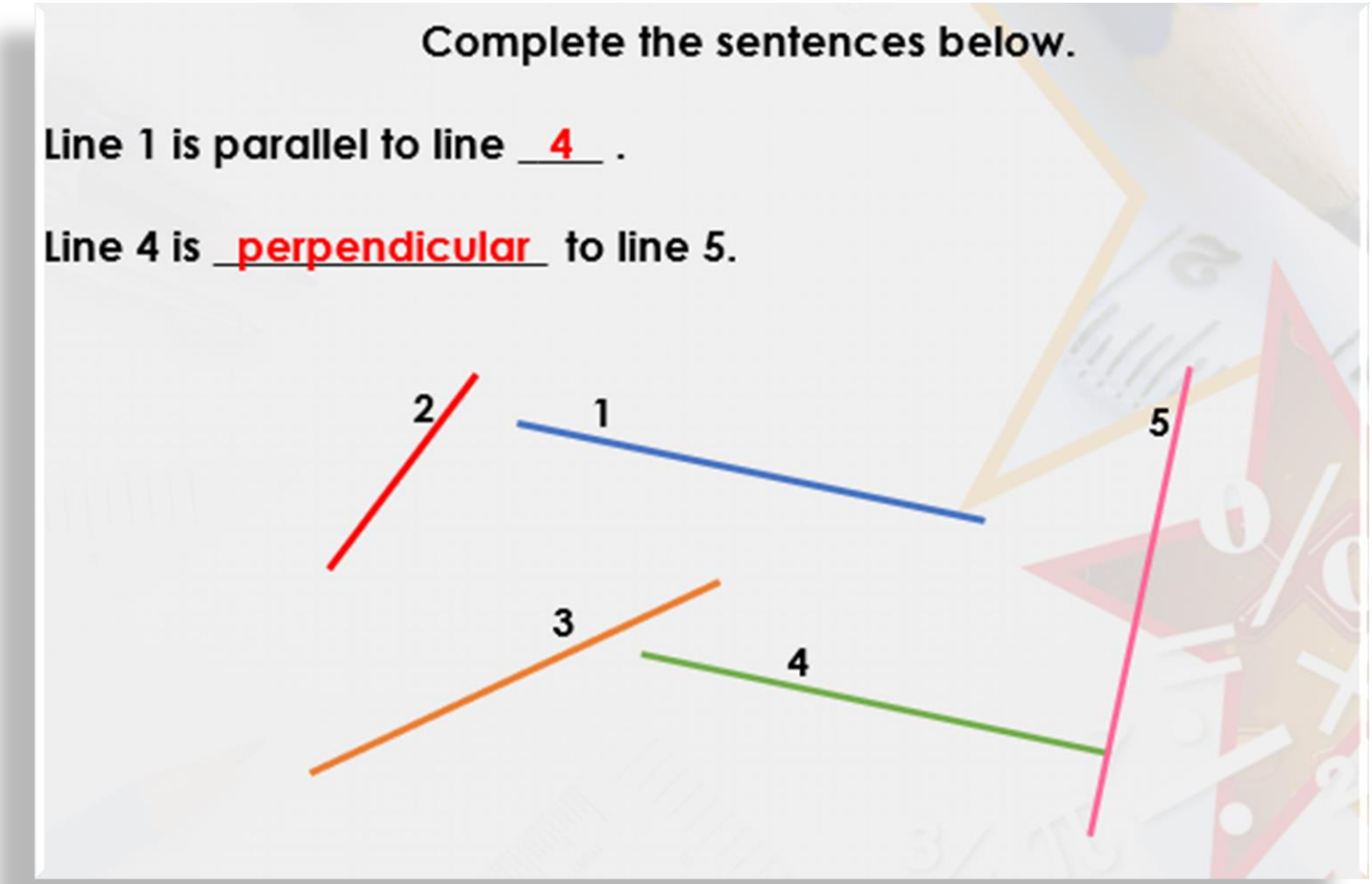
Learning

Answers

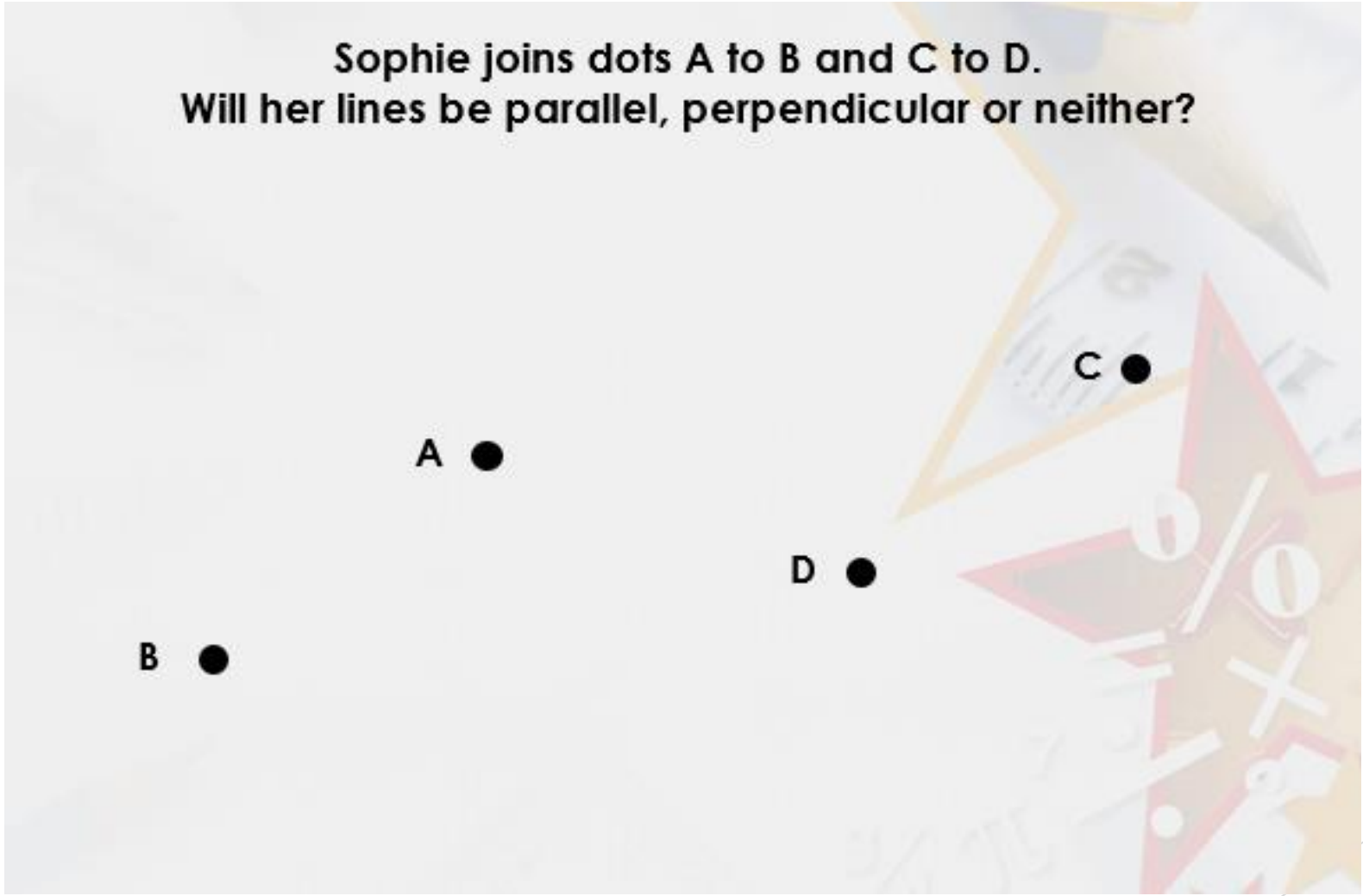
Complete the sentences below.

Line 1 is parallel to line __4__ .

Line 4 is __perpendicular__ to line 5.



Learning


Sophie joins dots A to B and C to D.
Will her lines be parallel, perpendicular or neither?
C
A
D
B

Learning

Answers

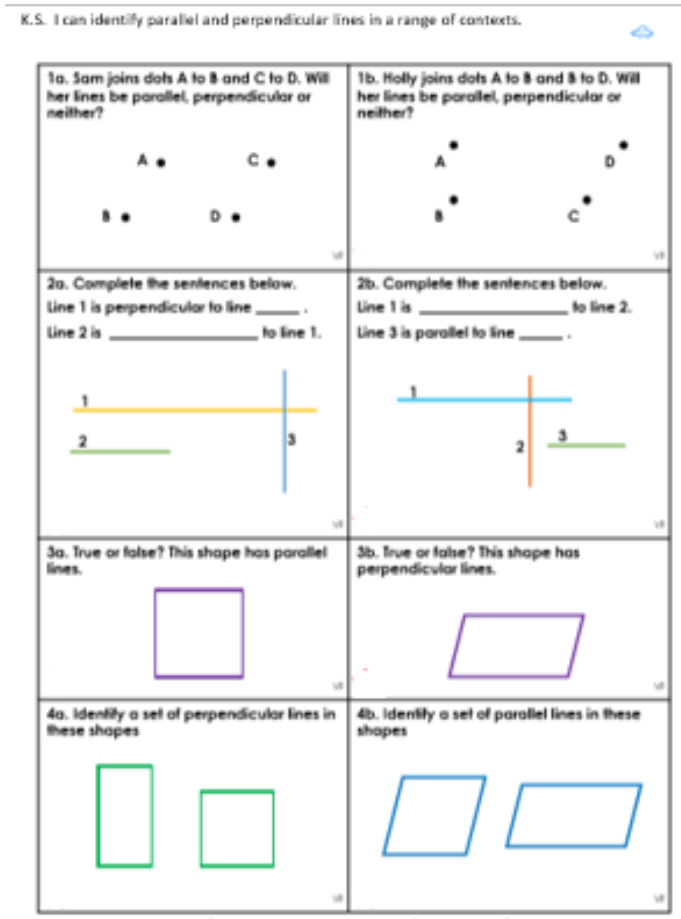
Sophie joins dots A to B and C to D.
Will her lines be parallel, perpendicular or neither?

Parallel

Please see ‘Lesson 1 Worksheets and Answers’ for today’s work.

Lesson 1

For worksheets see file named:
Lesson 1 worksheets and answers.
You can choose clouds, moons or stars.



K.S. I can identify parallel and perpendicular lines in a range of contexts.

1a. Sam joins dots A to B and C to D. Will her lines be parallel, perpendicular or neither?

1b. Holly joins dots A to B and B to D. Will her lines be parallel, perpendicular or neither?

2a. Complete the sentences below.
Line 1 is perpendicular to line ____ .
Line 2 is ____ to line 1.

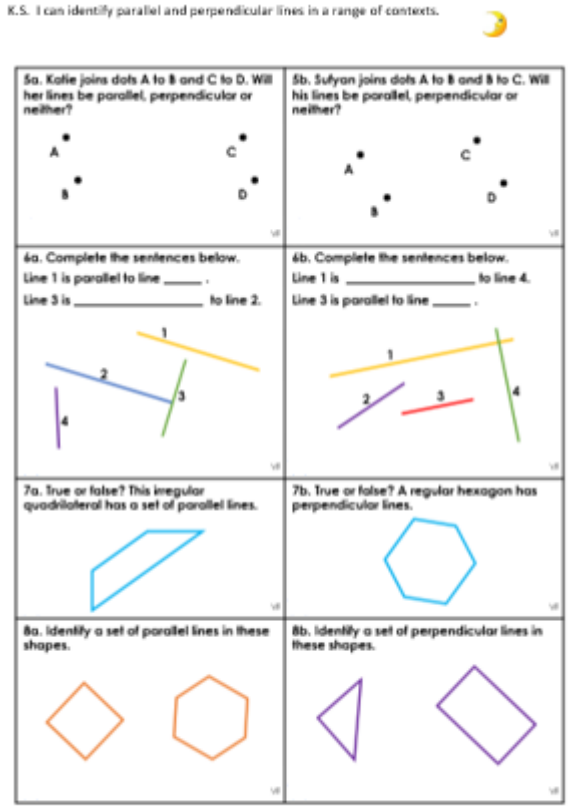
2b. Complete the sentences below.
Line 1 is ____ to line 2.
Line 3 is parallel to line ____ .

3a. True or false? This shape has parallel lines.

3b. True or false? This shape has perpendicular lines.

4a. Identify a set of perpendicular lines in these shapes

4b. Identify a set of parallel lines in these shapes



K.S. I can identify parallel and perpendicular lines in a range of contexts.

5a. Katie joins dots A to B and C to D. Will her lines be parallel, perpendicular or neither?

5b. Sufyan joins dots A to B and B to C. Will his lines be parallel, perpendicular or neither?

6a. Complete the sentences below.
Line 1 is parallel to line ____ .
Line 3 is ____ to line 2.

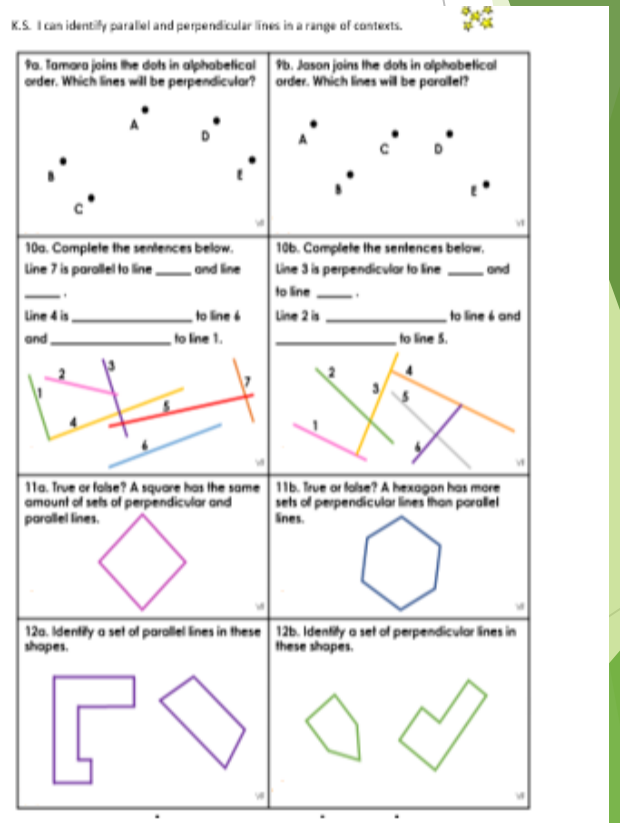
6b. Complete the sentences below.
Line 1 is ____ to line 4.
Line 3 is parallel to line ____ .

7a. True or false? This irregular quadrilateral has a set of parallel lines.

7b. True or false? A regular hexagon has perpendicular lines.

8a. Identify a set of parallel lines in these shapes.

8b. Identify a set of perpendicular lines in these shapes.



K.S. I can identify parallel and perpendicular lines in a range of contexts.

9a. Tamara joins the dots in alphabetical order. Which lines will be perpendicular?

9b. Jason joins the dots in alphabetical order. Which lines will be parallel?

10a. Complete the sentences below.
Line 7 is parallel to line ____ and line ____ .
Line 4 is ____ to line 6 and ____ to line 1.

10b. Complete the sentences below.
Line 3 is perpendicular to line ____ and to line ____ .
Line 2 is ____ to line 6 and ____ to line 5.

11a. True or false? A square has the same amount of sets of perpendicular and parallel lines.

11b. True or false? A hexagon has more sets of perpendicular lines than parallel lines.

12a. Identify a set of parallel lines in these shapes.

12b. Identify a set of perpendicular lines in these shapes.

Lesson 2

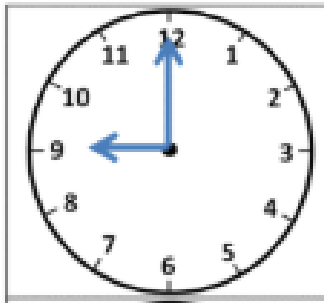
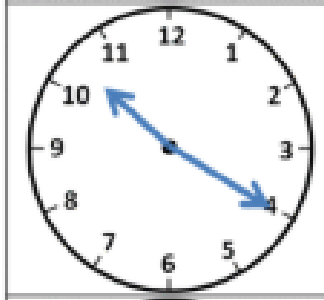
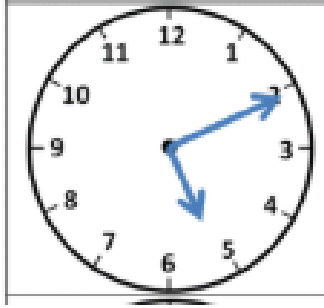
Warm-up

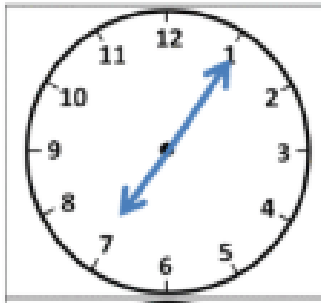
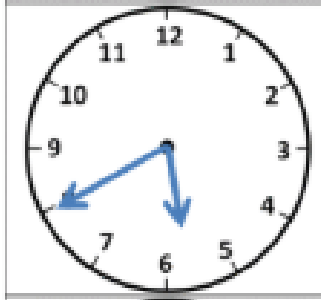
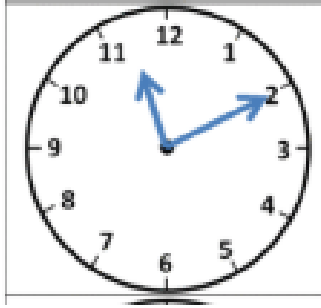
Write down the correct time in digital.

	5 minutes later	9:05
	10 minutes earlier	
	20 minutes later	

	10 minutes earlier	
	15 minutes later	
	1 hour earlier	

Answers

	5 minutes later	9:05
	10 minutes earlier	10:10
	20 minutes later	5:30

	10 minutes earlier	6:55
	15 minutes later	5:55
	1 hour earlier	10:10

Learning

Key Skills:
I can identify horizontal and vertical lines of symmetry.

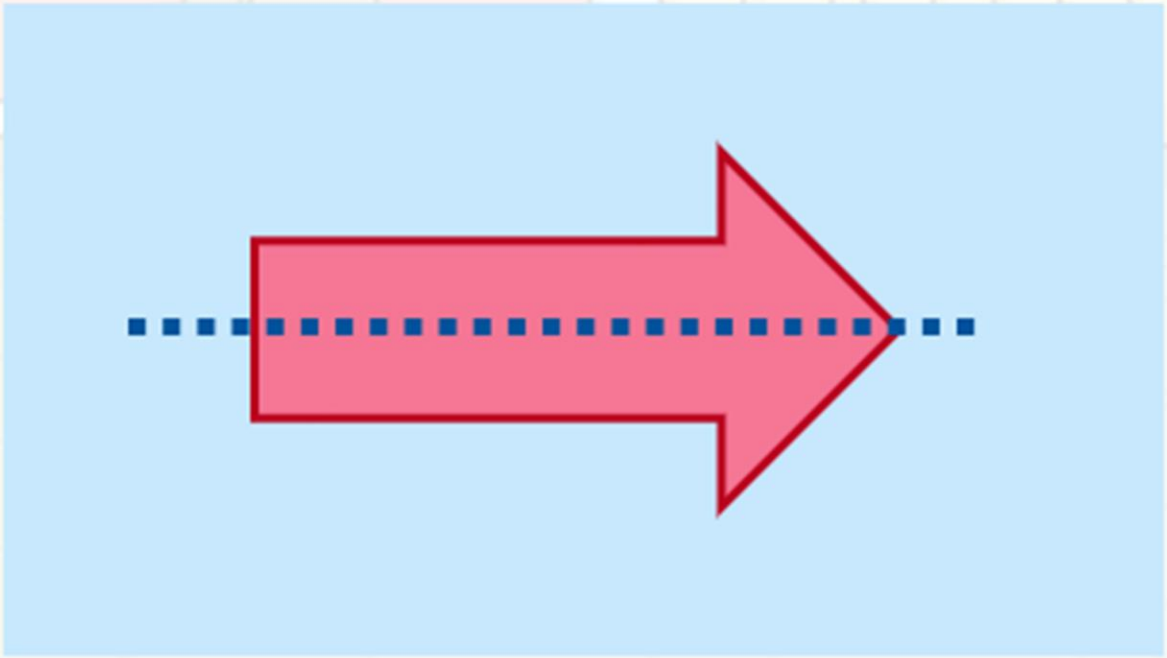
When we look at symmetry, we can talk about a **vertical line of symmetry**.

That means that the line of symmetry goes from top to bottom, like this butterfly:

Learning

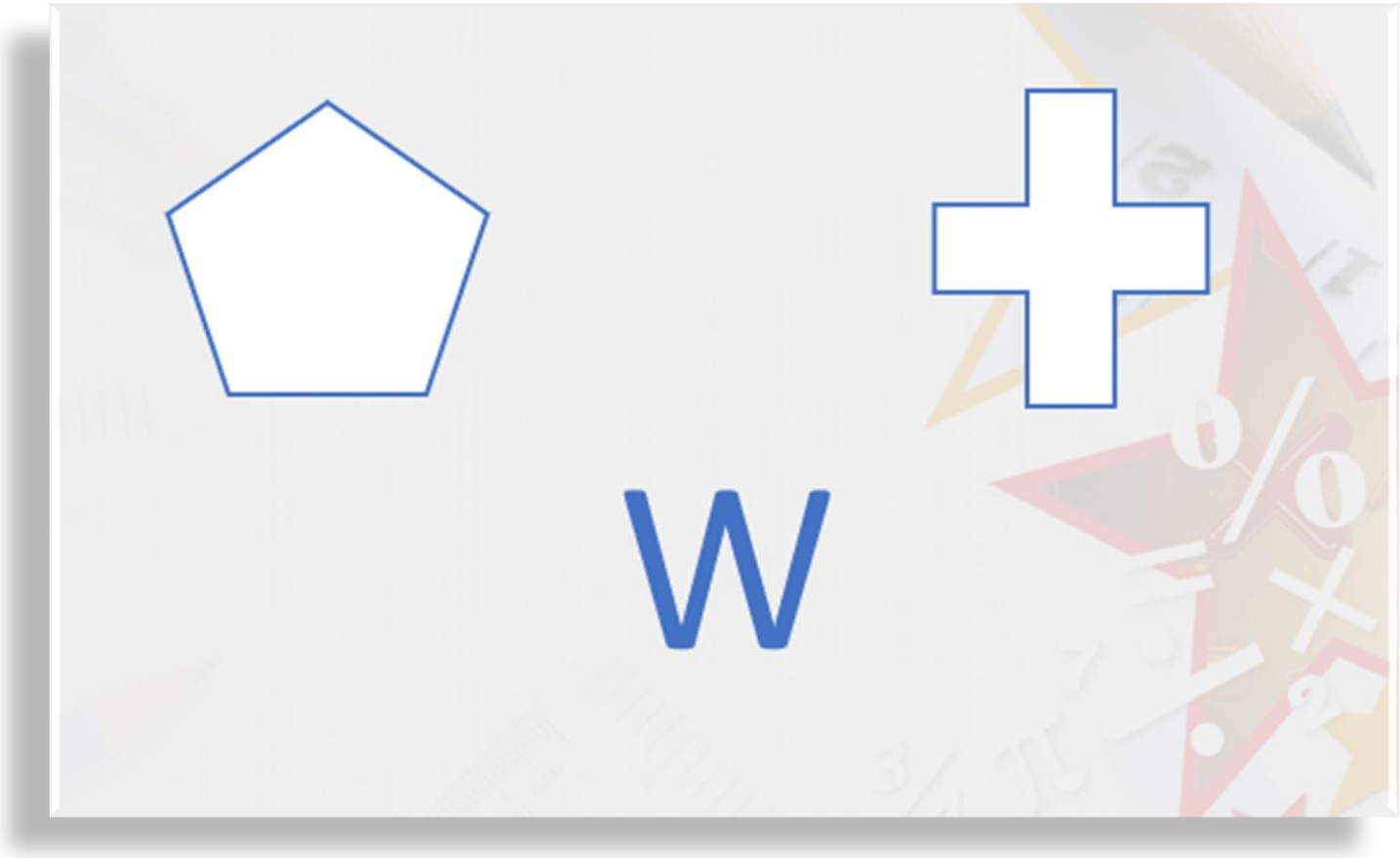
When we look at symmetry, we can talk about a **horizontal line of symmetry.**

That means that the line of symmetry goes from side to side, like this arrow:



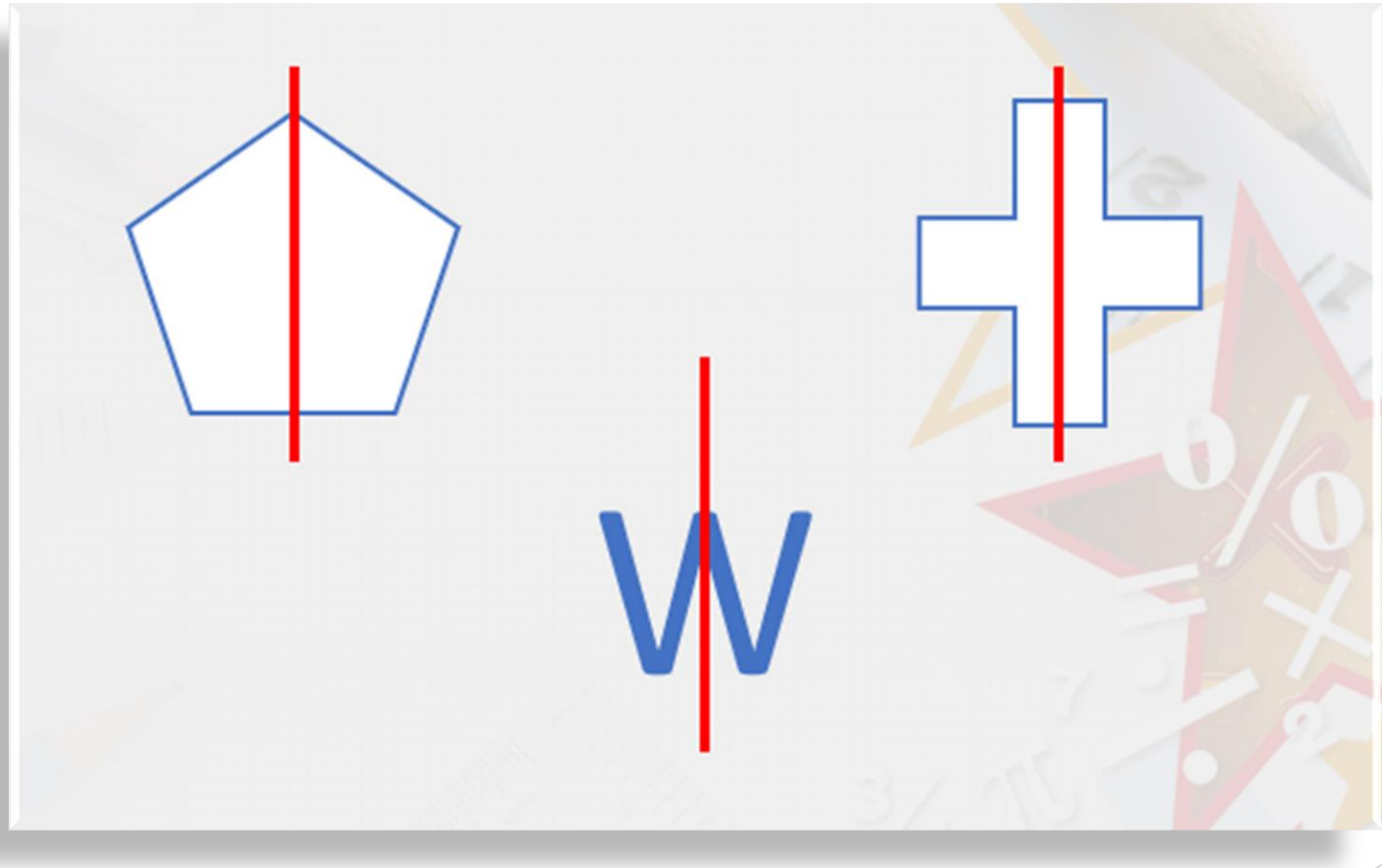
Learning

Identify the vertical lines of symmetry.

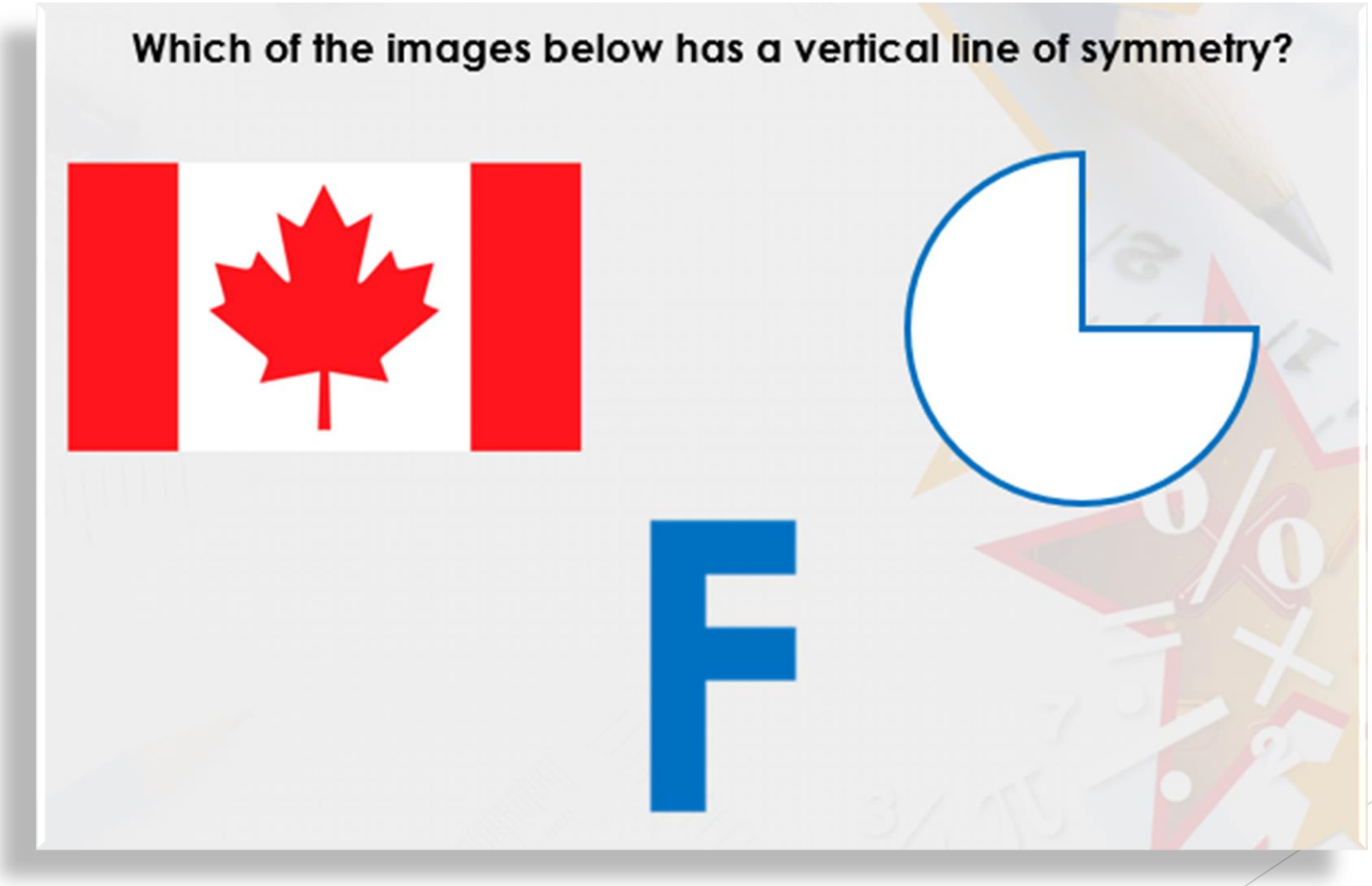


Learning

Answers

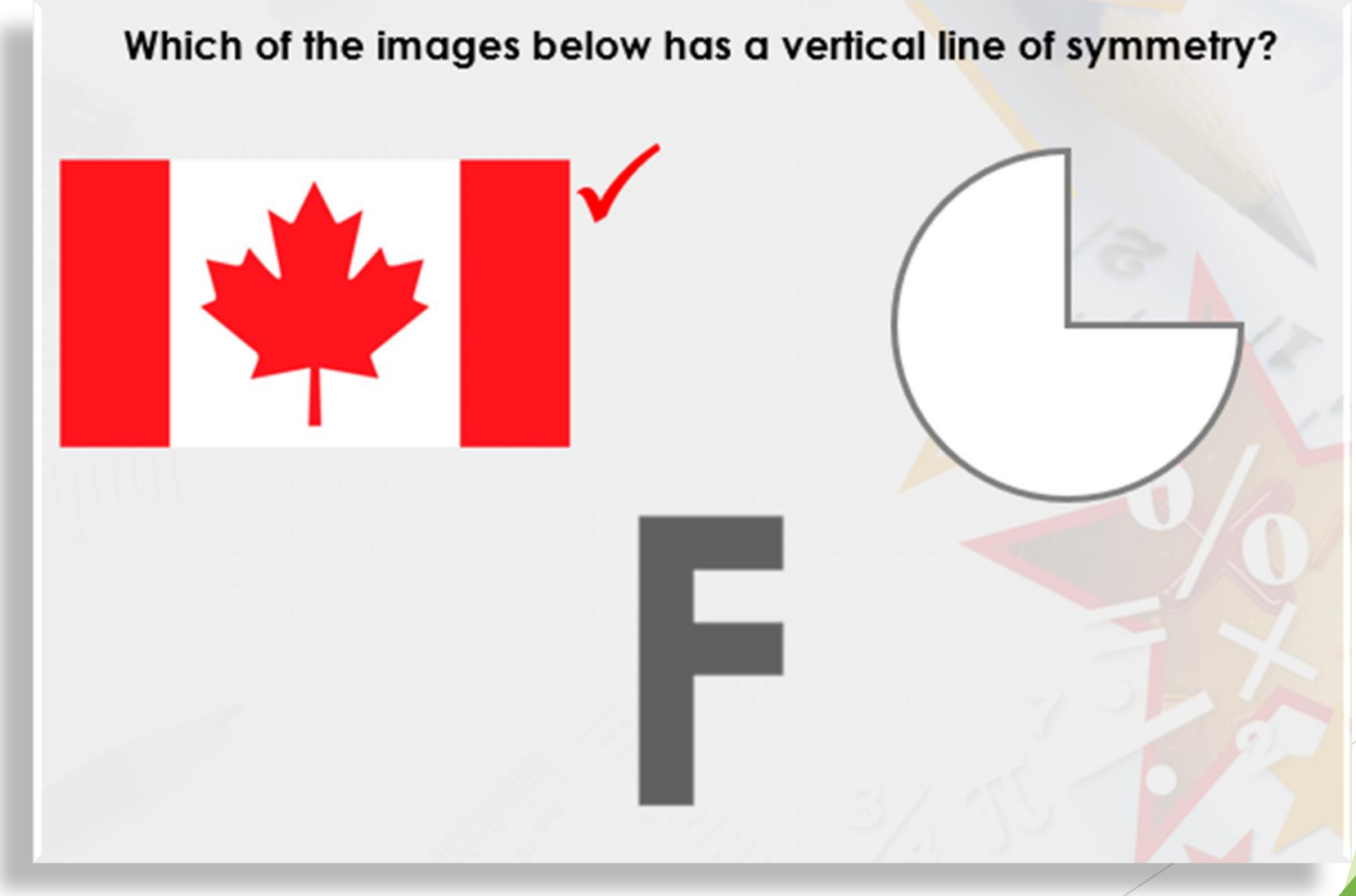


Learning

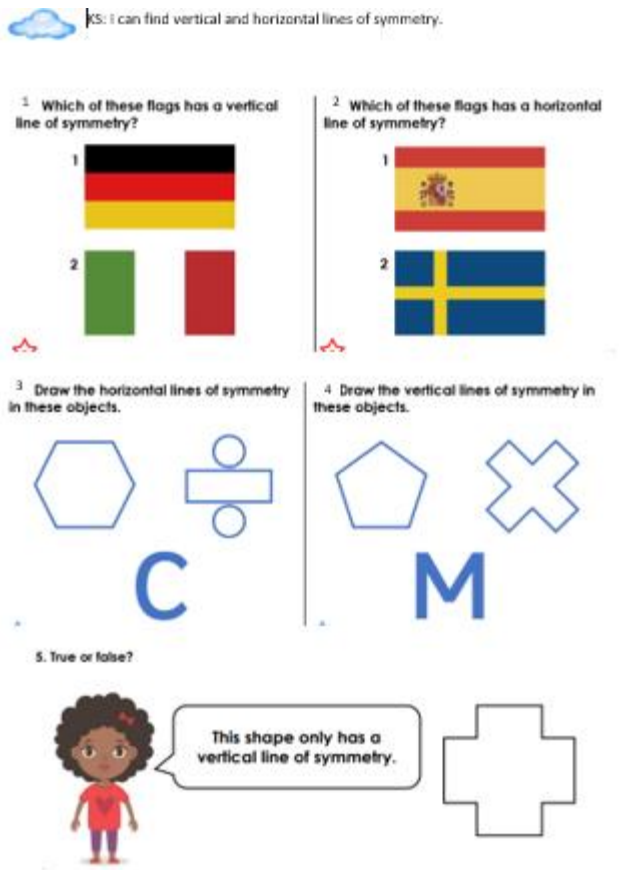


Learning

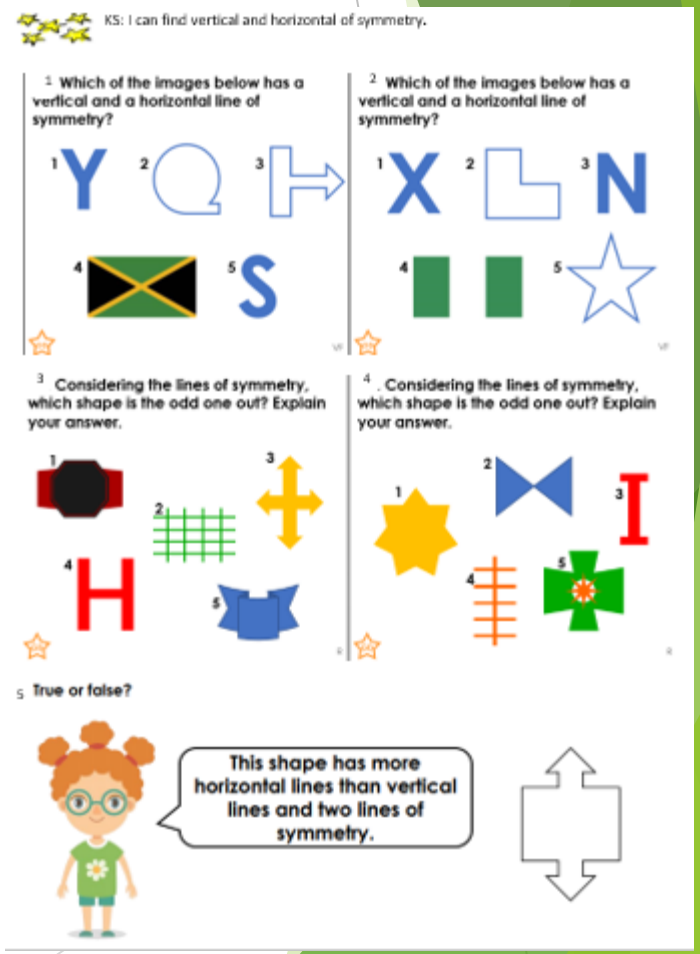
Answers



Lesson 2

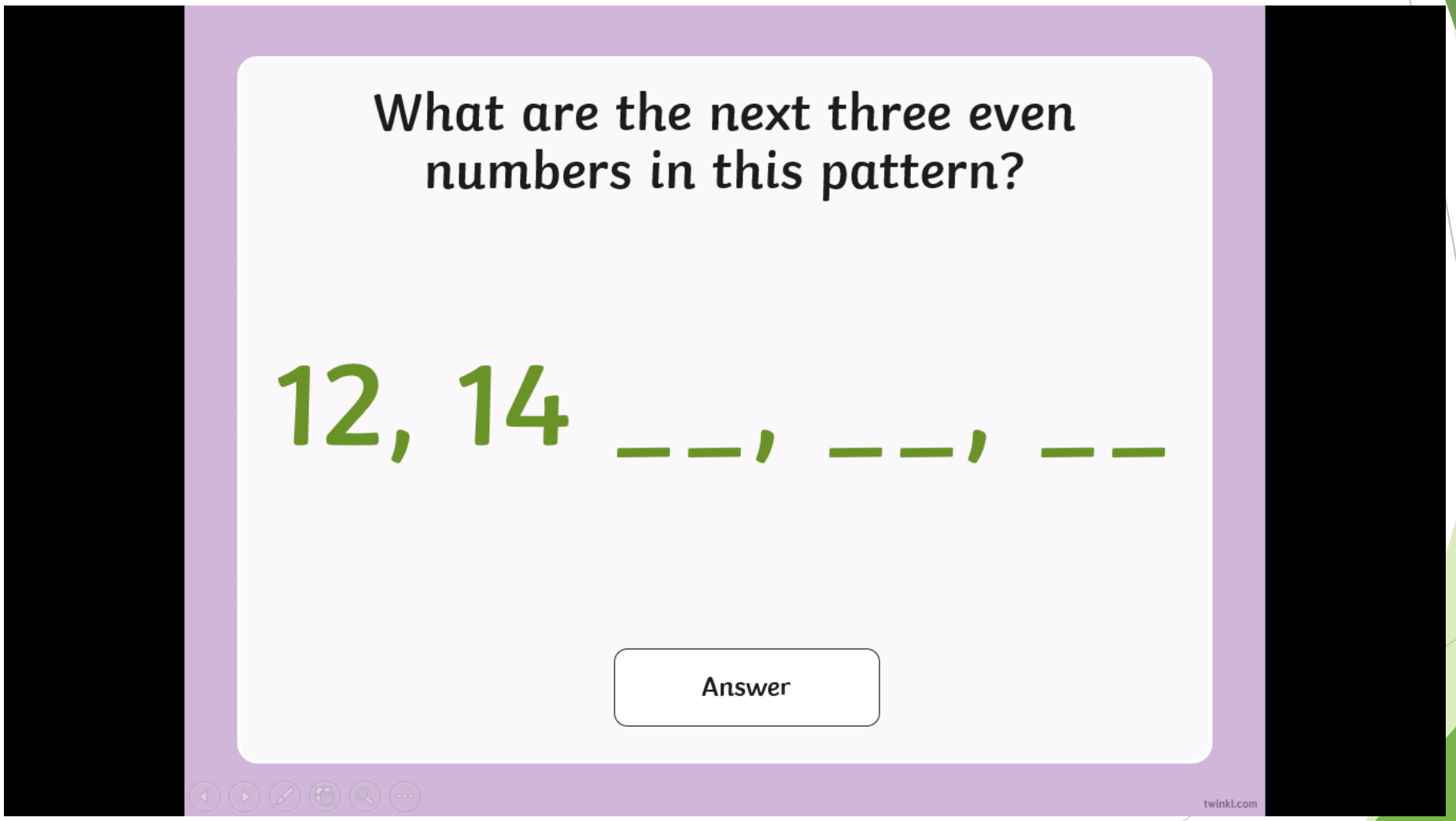


For worksheets see file named: Lesson 2 worksheets and answers. You can choose clouds, moons or stars.



Lesson 3

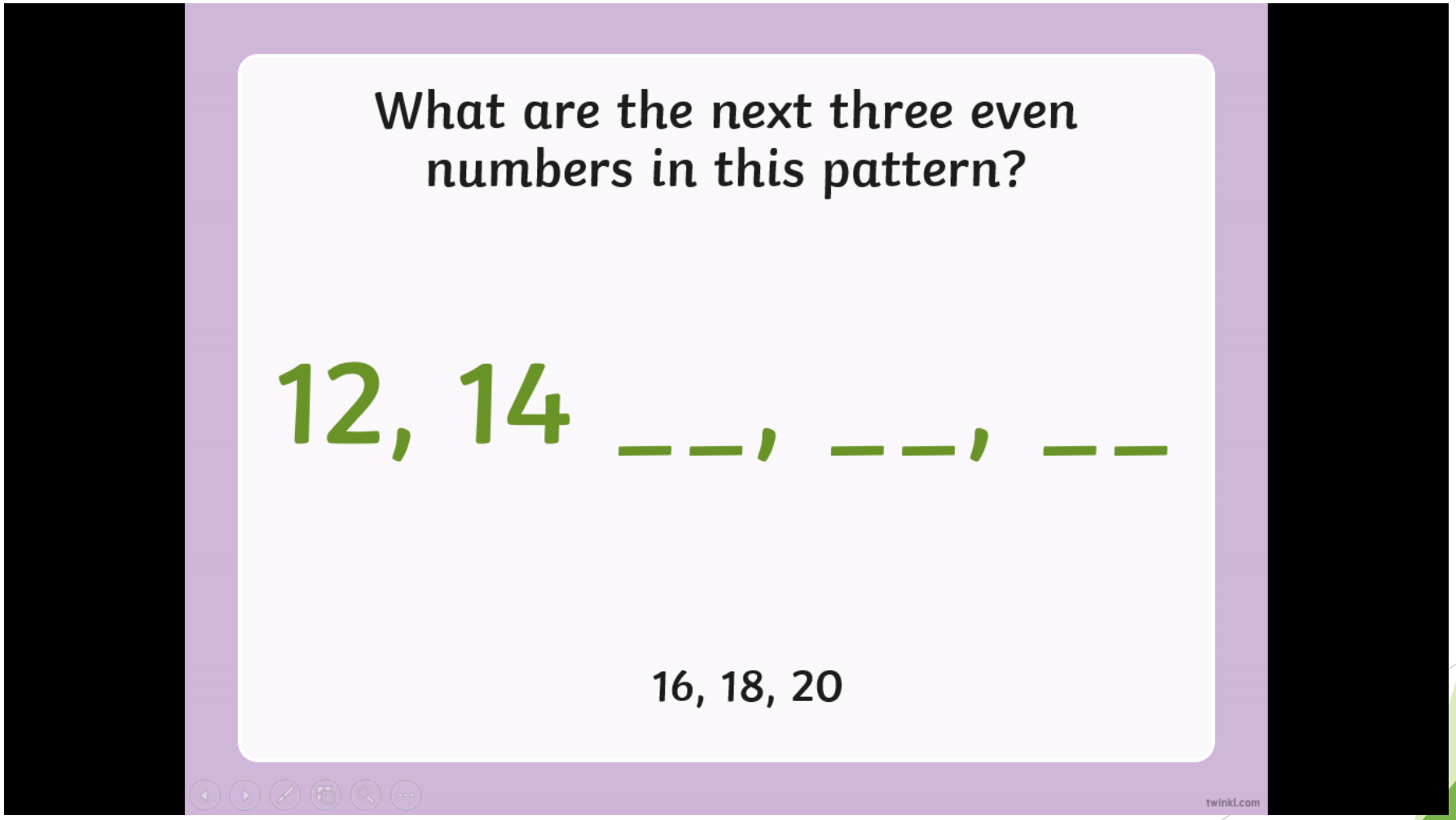
Warm-up



Lesson 3

Warm-up

Answers



Lesson 3

Key Skills:
I can describe the properties of 2 dimensional (2d) shapes.

Learning

We can describe 2d shapes by their properties.

How many sides does it have?
How many vertices or angles does it have?*
Does it have any parallel lines?
Does it have any perpendicular lines?
Does it have lines of symmetry?

*A vertex or an angle will be used instead of corner.
Vertices means more than one vertex or corner.

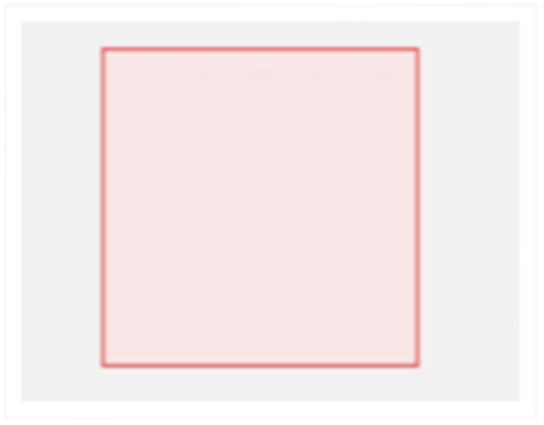
Lesson 3

Learning

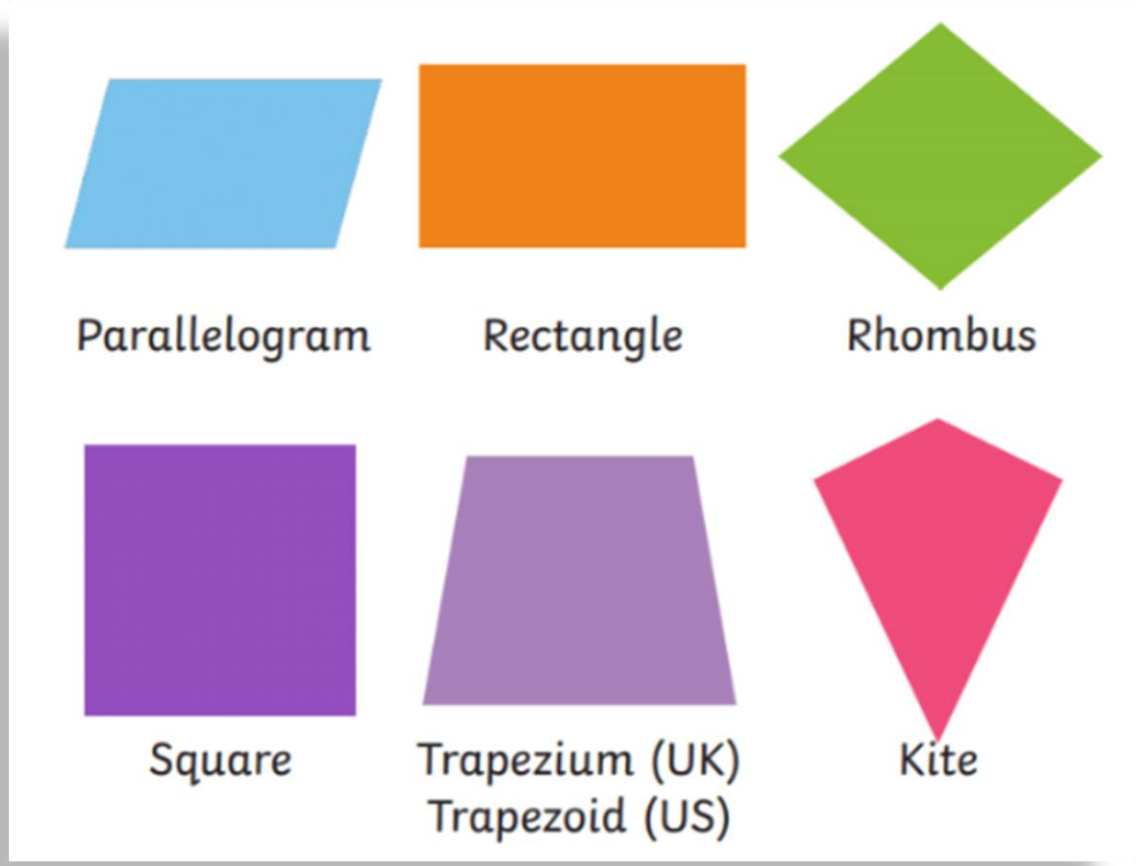
This square has:

- 4 right-angles (corners)
- 4 straight sides
- 1 horizontal line of symmetry
- 1 vertical line of symmetry
- 2 diagonal lines of symmetry
- 2 sets of parallel lines
- 2 sets of perpendicular lines.

Lesson 3 Learning

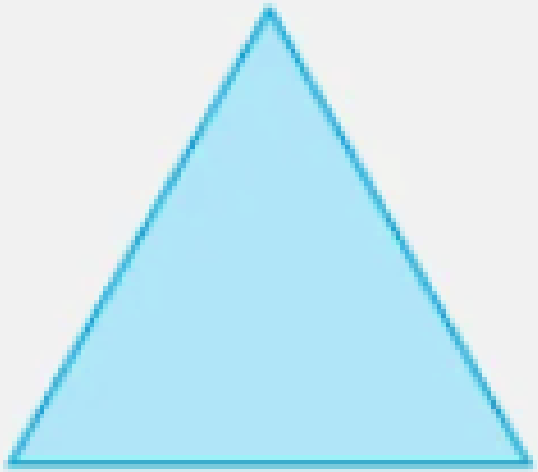


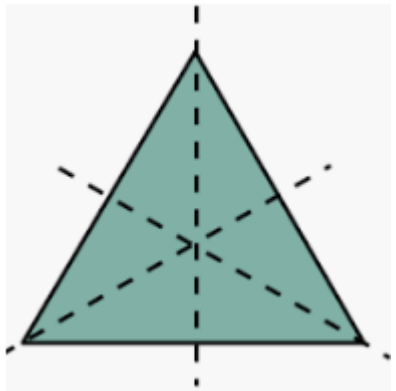
A square is also part of a group of shapes known as quadrilaterals. Quadrilaterals are shapes that have 4 sides.



Lesson 3

Learning



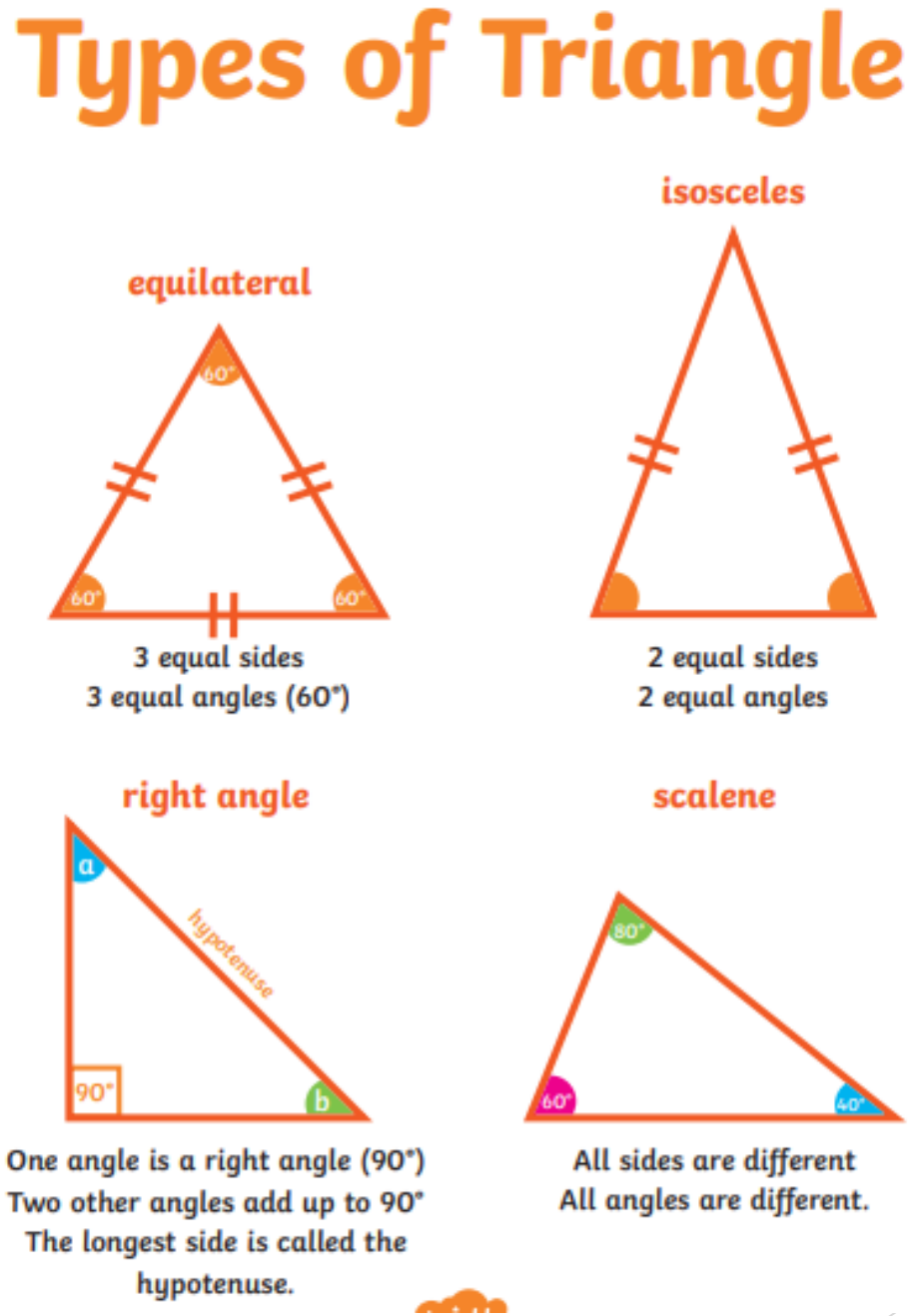


This equilateral triangle has:

- 3 acute angles(corners)
- 3 straight sides of equal length
- 1 vertical line of symmetry
- 2 diagonal lines of symmetry.

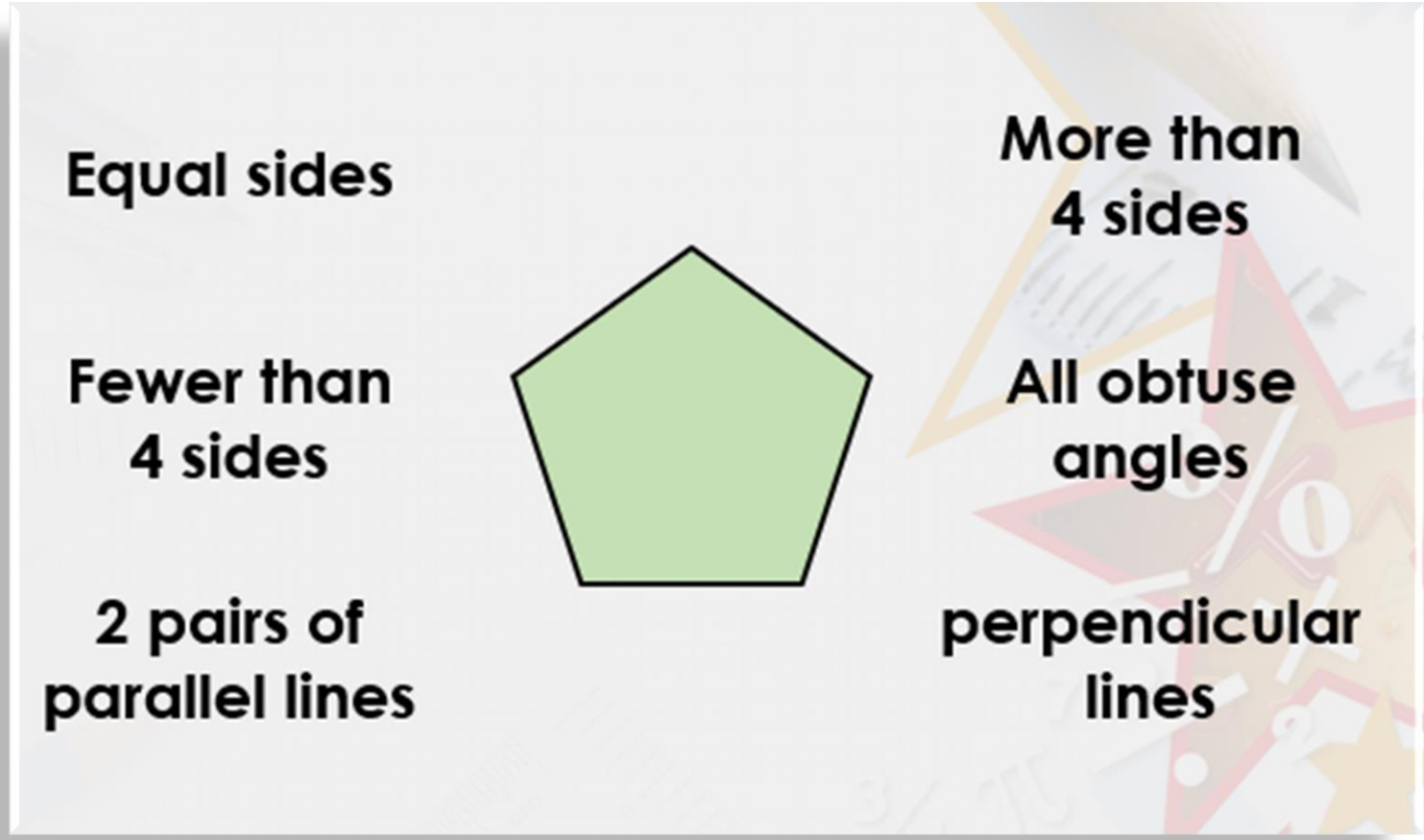
*Not all triangles have the same descritption.

Information



Lesson 3 Learning

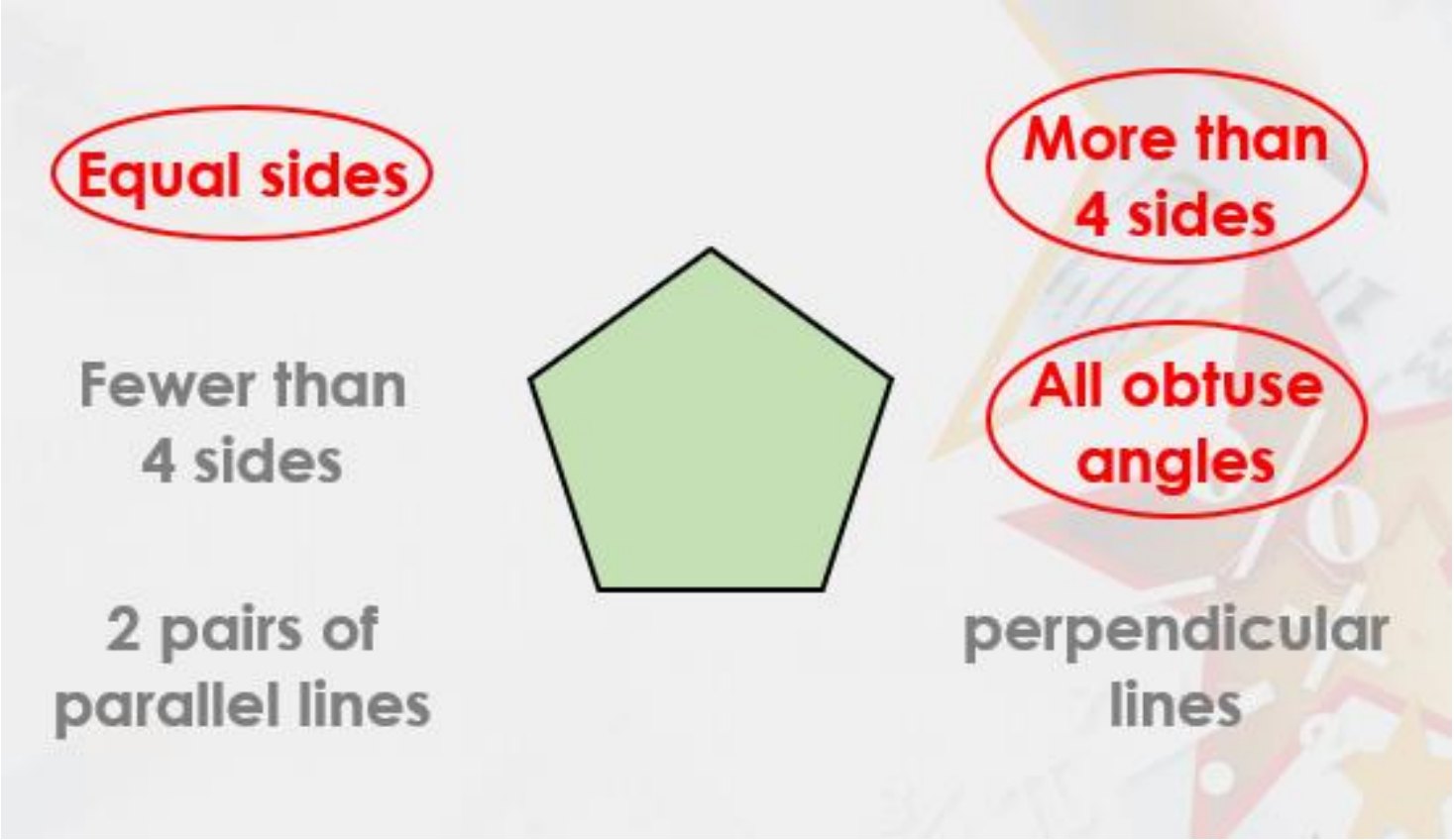
Identify the descriptions that fit this shape.



Can you name this shape?

Lesson 3
Learning

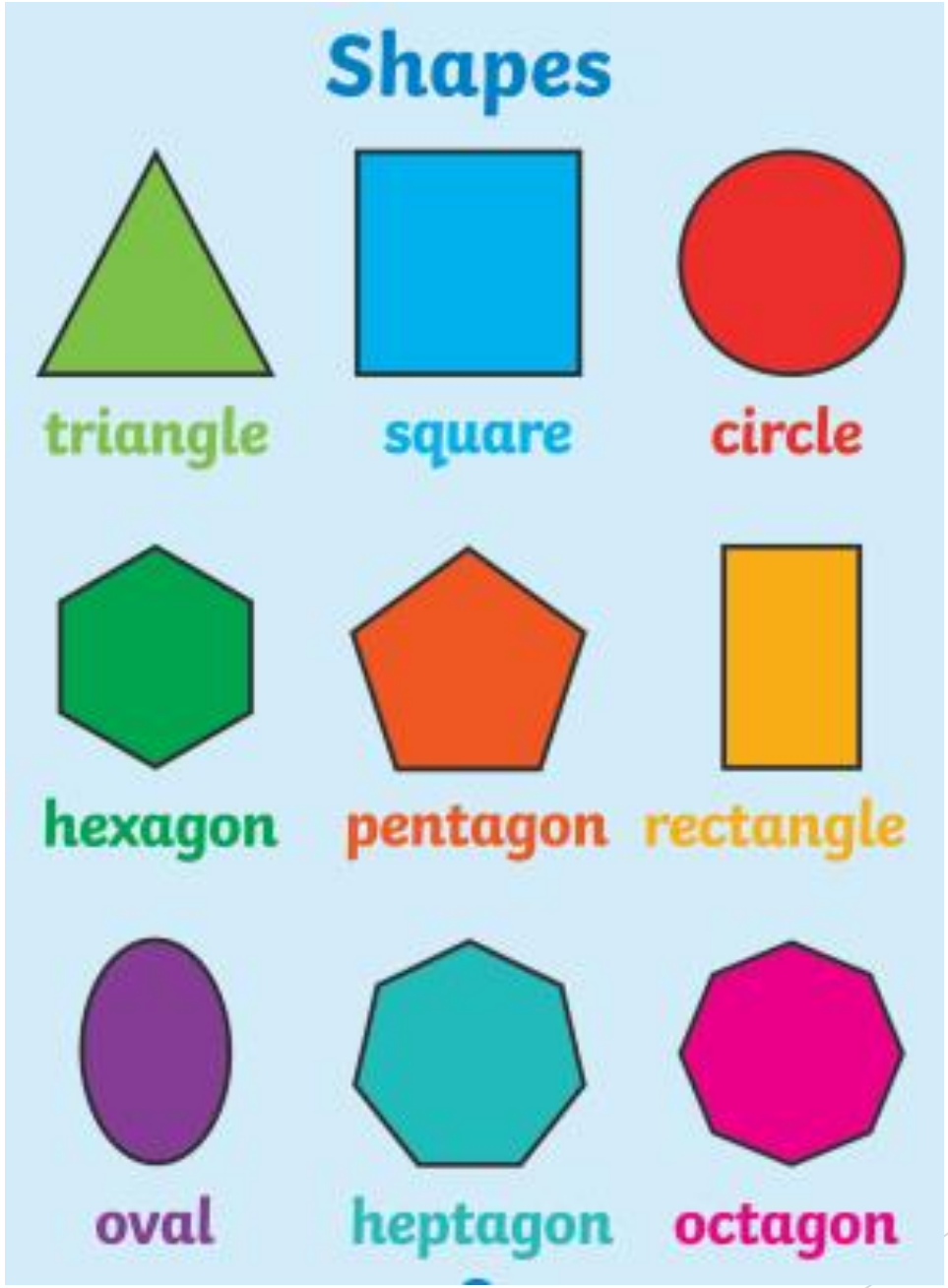
Answers



Regular Pentagon

Regular means that all the sides and angles are equal.

Information

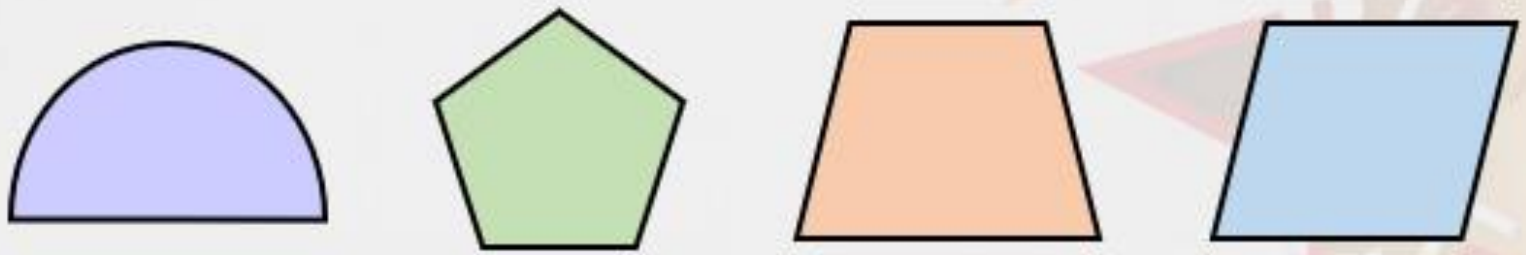


Lesson 3

Learning

Circle one shape which matches the description below.

- Fewer sides than a pentagon.
- 1 line of symmetry.
- No acute angles.



Lesson 3

Learning

Answer

Circle one shape which matches the description below.

- Fewer sides than a pentagon.
- 1 line of symmetry.
- No acute angles.

Lesson 3

Learning

I have no parallel lines.

I have more than 4 sides.

I have less 5 lines of symmetry.

I am a _____.

Now draw me in your book.

Lesson 3
Learning

Answer

I have no parallel lines.

I have more than 4 sides.

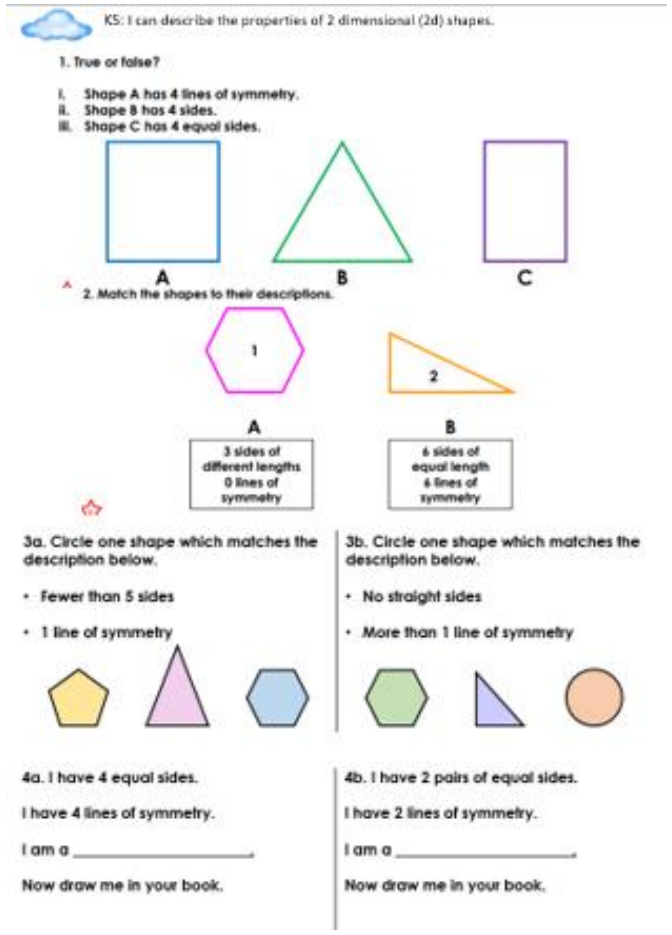
I have less 5 lines of symmetry.

I am a pentagon.

Now draw me in your book.

Lesson 3

For worksheets see file named: Lesson 3 worksheets and Answers. You can choose clouds, moons or stars.



KS: I can describe the properties of 2 dimensional (2d) shapes.

1. True or false?

i. Shape A has 4 lines of symmetry.
ii. Shape B has 4 sides.
iii. Shape C has 4 equal sides.

A B C

2. Match the shapes to their descriptions.

1 2

A: 3 sides of different lengths, 0 lines of symmetry

B: 6 sides of equal length, 6 lines of symmetry

3a. Circle one shape which matches the description below.

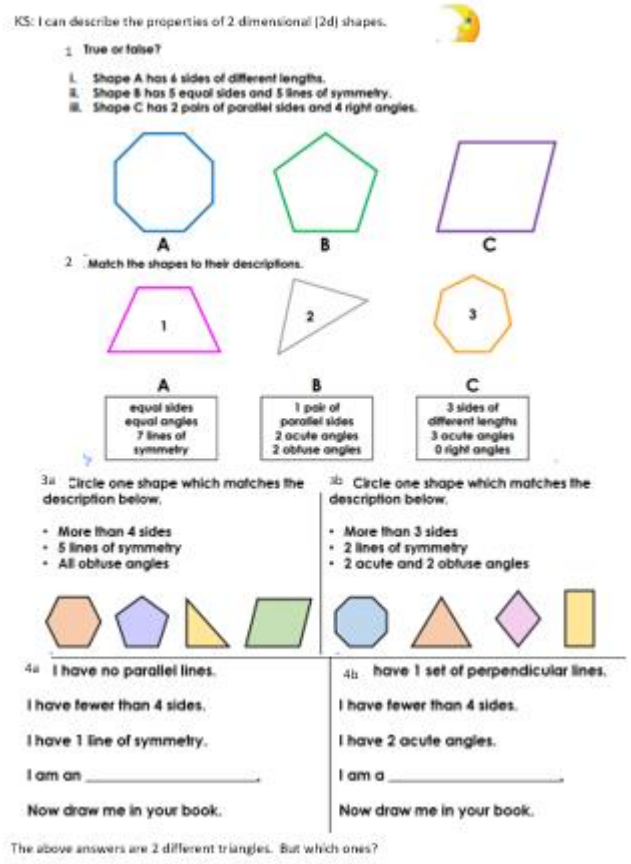
- Fewer than 5 sides
- 1 line of symmetry

3b. Circle one shape which matches the description below.

- No straight sides
- More than 1 line of symmetry

4a. I have 4 equal sides.
I have 4 lines of symmetry.
I am a _____.
Now draw me in your book.

4b. I have 2 pairs of equal sides.
I have 2 lines of symmetry.
I am a _____.
Now draw me in your book.



KS: I can describe the properties of 2 dimensional (2d) shapes.

1 True or false?

i. Shape A has 6 sides of different lengths.
ii. Shape B has 5 equal sides and 5 lines of symmetry.
iii. Shape C has 2 pairs of parallel sides and 4 right angles.

A B C

2 Match the shapes to their descriptions.

1 2 3

A: equal sides, equal angles, 7 lines of symmetry

B: 1 pair of parallel sides, 2 acute angles, 2 obtuse angles

C: 3 sides of different lengths, 3 acute angles, 0 right angles

3a Circle one shape which matches the description below.

- More than 4 sides
- 5 lines of symmetry
- All obtuse angles

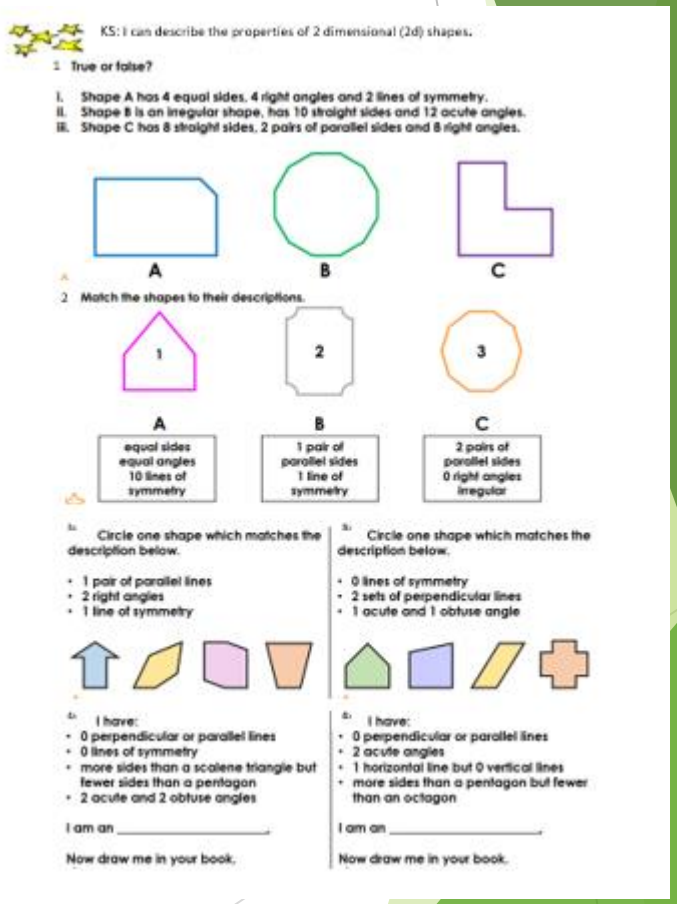
3b Circle one shape which matches the description below.

- More than 3 sides
- 2 lines of symmetry
- 2 acute and 2 obtuse angles

4a I have no parallel lines.
I have fewer than 4 sides.
I have 1 line of symmetry.
I am an _____.
Now draw me in your book.

4b have 1 set of perpendicular lines.
I have fewer than 4 sides.
I have 2 acute angles.
I am a _____.
Now draw me in your book.

The above answers are 2 different triangles. But which ones?



KS: I can describe the properties of 2 dimensional (2d) shapes.

1 True or false?

i. Shape A has 4 equal sides, 4 right angles and 2 lines of symmetry.
ii. Shape B is an irregular shape, has 10 straight sides and 12 acute angles.
iii. Shape C has 8 straight sides, 2 pairs of parallel sides and 8 right angles.

A B C

2 Match the shapes to their descriptions.

1 2 3

A: equal sides, equal angles, 10 lines of symmetry

B: 1 pair of parallel sides, 1 line of symmetry

C: 2 pairs of parallel sides, 0 right angles, irregular

3a Circle one shape which matches the description below.

- 1 pair of parallel lines
- 2 right angles
- 1 line of symmetry

3b Circle one shape which matches the description below.

- 0 lines of symmetry
- 2 sets of perpendicular lines
- 1 acute and 1 obtuse angle

4a I have:
- 0 perpendicular or parallel lines
- 0 lines of symmetry
- more sides than a scalene triangle but fewer sides than a pentagon
- 2 acute and 2 obtuse angles

I am an _____.
Now draw me in your book.

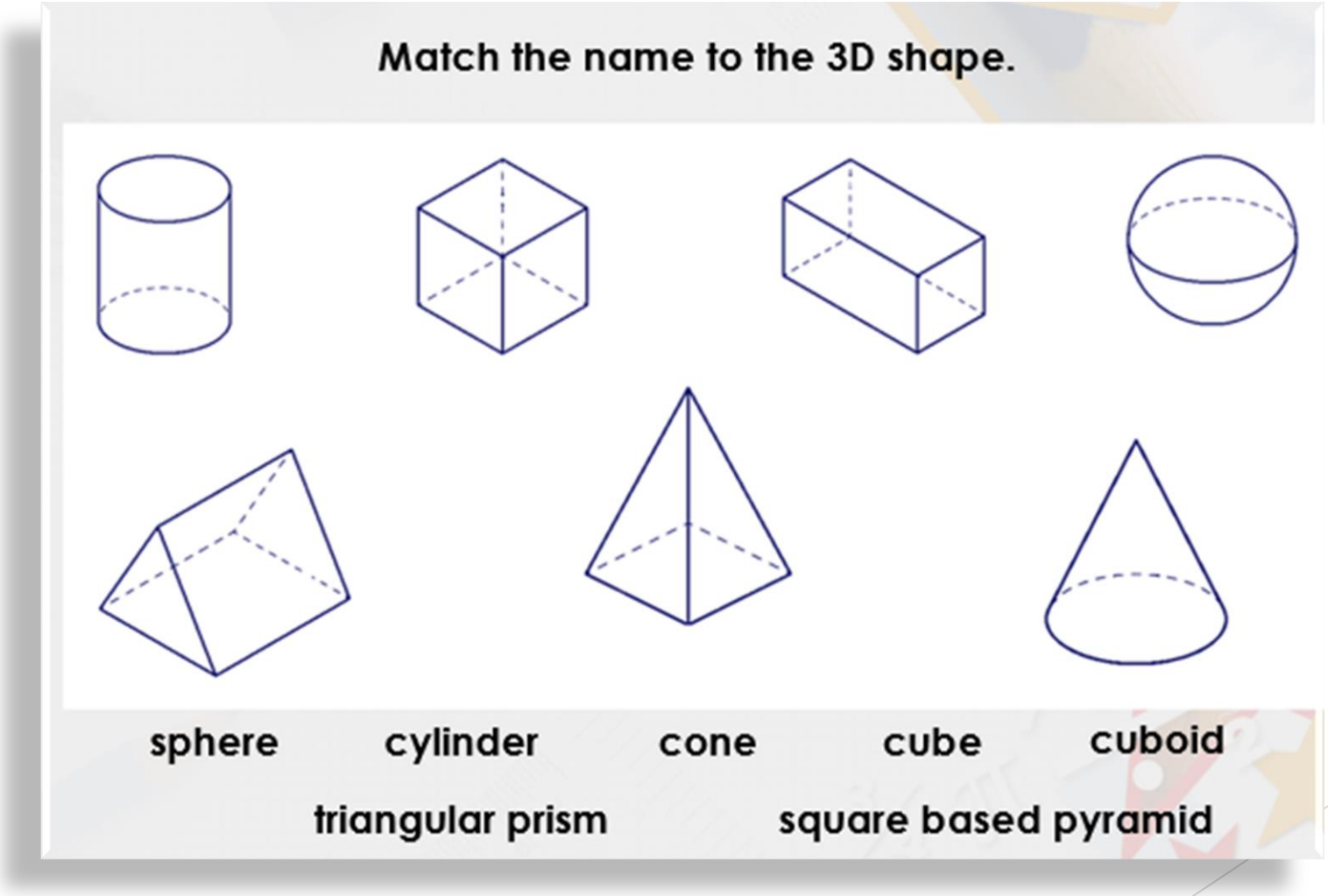
4b I have:
- 0 perpendicular or parallel lines
- 2 acute angles
- 1 horizontal line but 0 vertical lines
- more sides than a pentagon but fewer than an octagon

I am an _____.
Now draw me in your book.

Lesson 4 Learning

Key Skills:

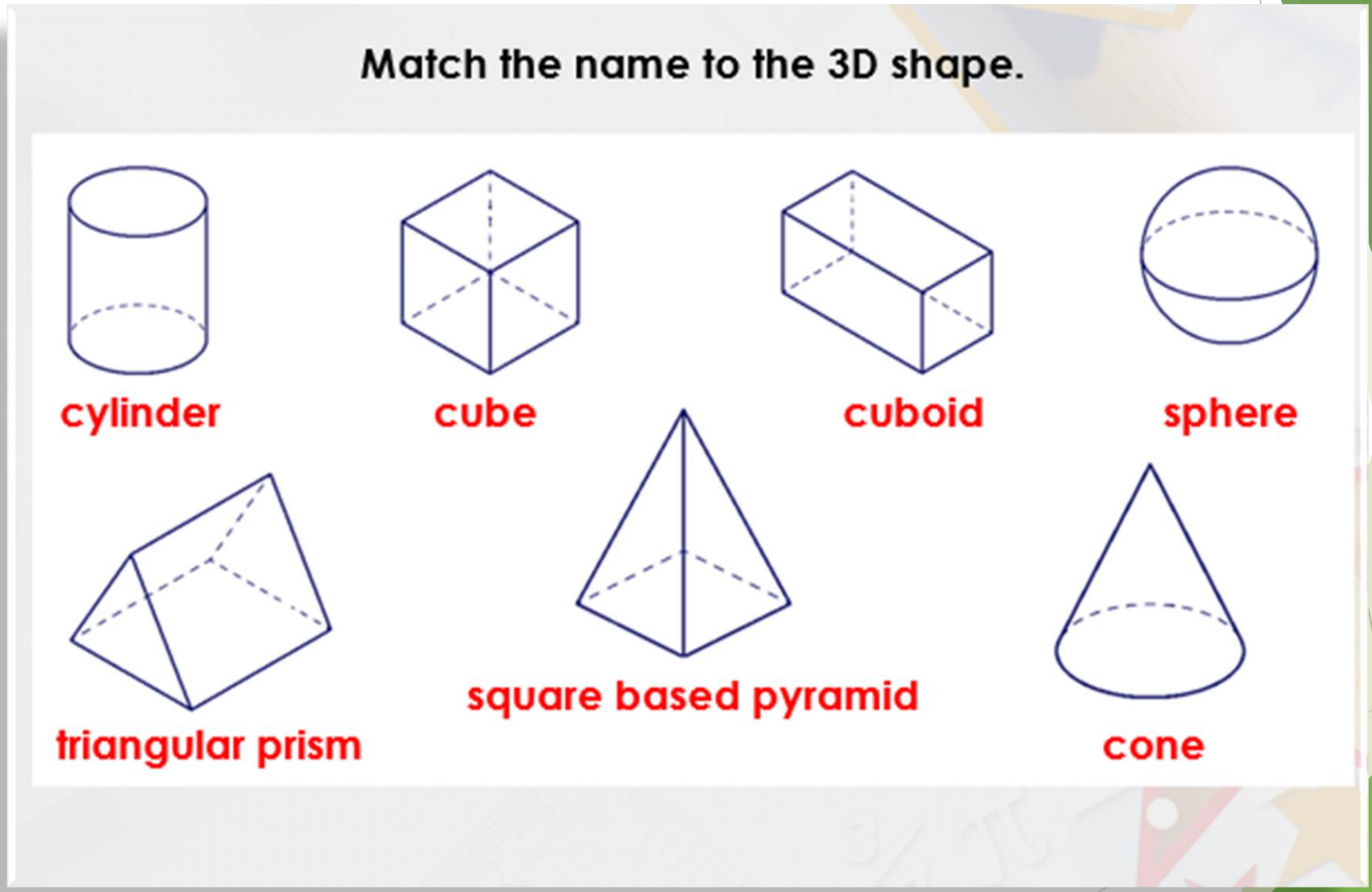
I can describe and identify 3 dimensional (3d) shapes.



Lesson 4

Learning

Answers



Lesson 4

Learning

Describing 3d shapes

We can say that a cube has 6 square faces.

Cube

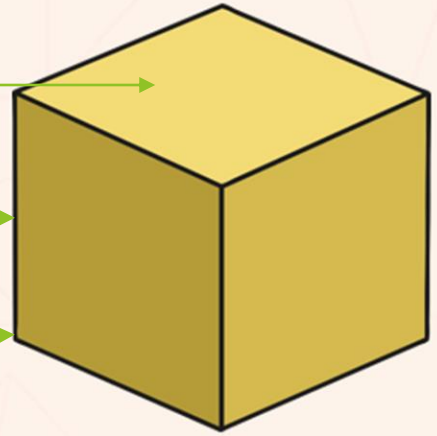
Cubes have:

6 faces;

12 edges

- 8 vertices;

- edges that are all the same length.



Lesson 4

Learning

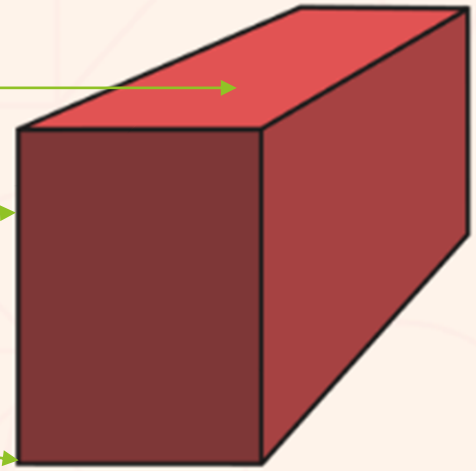
Describing 3d shapes

This cuboid has 6 rectangular shaped faces.

Cuboid

Cuboids have:

- 6 faces;
- 12 edges
- 8 vertices;
- edges that are **not** all the same length.



Lesson 4

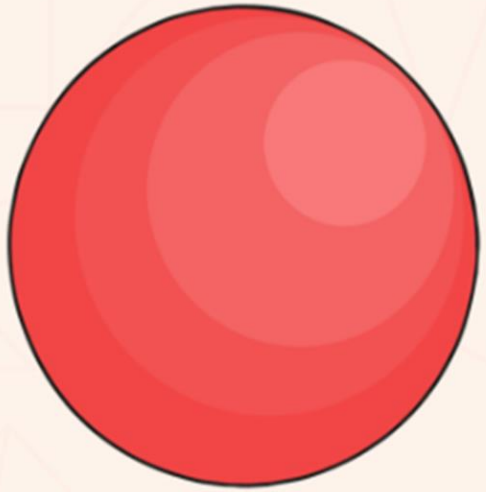
Learning

Describing 3d shapes

Sphere

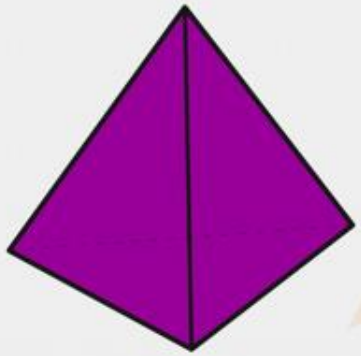
Spheres:

- are perfectly round;
- have no edges;
- have no vertices.
- 1 curved surface



Lesson 4

True or false?

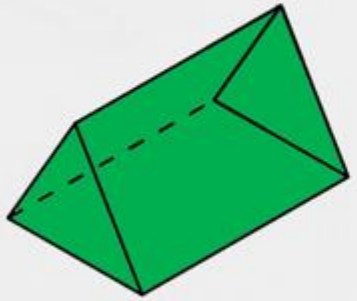


A triangular based pyramid has 4 vertices.

Use the shapes on Lesson 4 slide 2 to help.

Try these tasks.

Tick the statements which relate to the shape.

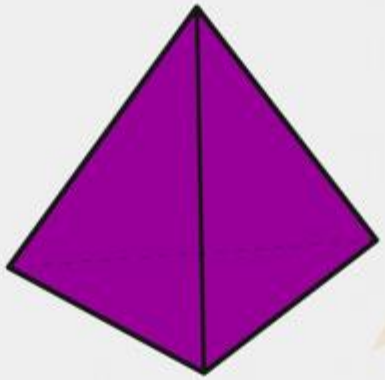


2 triangular faces	
6 vertices	
It is a triangular based pyramid	

Lesson 4

Answers

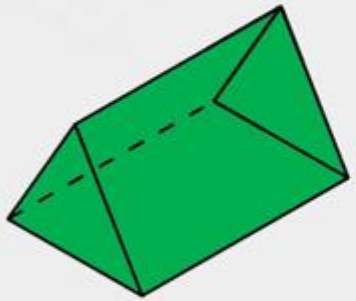
True or false?



A triangular based pyramid has 4 vertices.

True

Tick the statements which relate to the shape.



2 triangular faces	✓
6 vertices	✓
It is a triangular based pyramid	

Lesson 4

Learning

Circle the shapes that have more than 5 edges.

cone

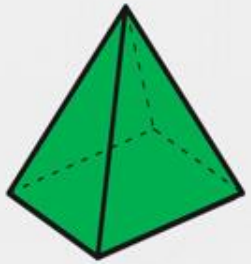
square based pyramid

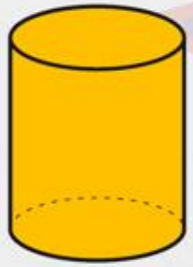
cuboid

Are the following statements always true, sometimes true or never true?

A) A square based pyramid has 4 vertices.

B) A cylinder has more curved edges than a cone.





Lesson 4

Learning

Circle the shapes that have more than 5 edges.

cone

square based pyramid

cuboid

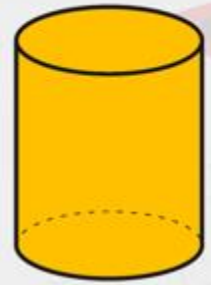
Are the following statements always true, sometimes true or never true?

A) A square based pyramid has 4 vertices.

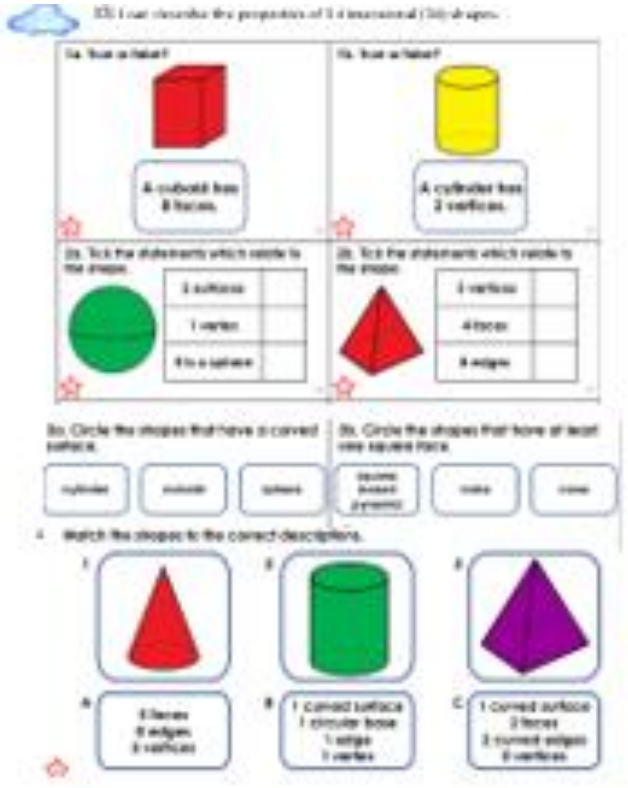
Never true

B) A cylinder has more curved edges than a cone.

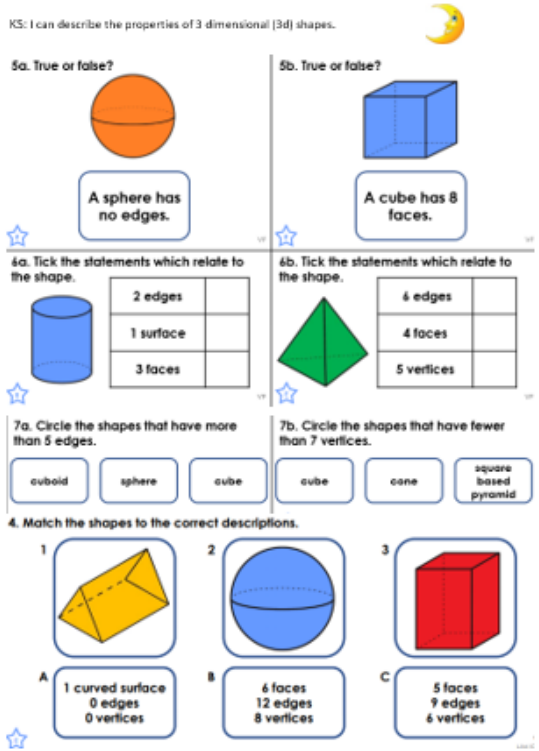
Always true

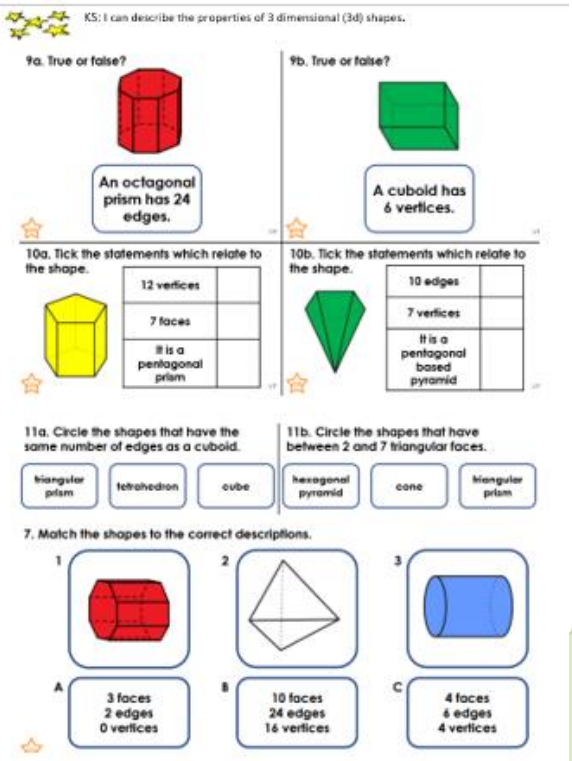


Lesson 4



For worksheets see file named:
Lesson 4 worksheets and answers.
You can choose clouds, moons or stars.





Lesson 5

Today we are going to take a break from fractions and concentrate on our mental maths skills. On the next few pages you will find a PALs test, a mental maths test, and the answers. Don’t forget to use TTrockstars and check the Year 3 blog to see if your name appears.

Name:

$300 + 8 + 50 =$

$348 - 20 =$

$348 - 200 =$

PAL 3:2
Challenge
Week 3

___, 13 , 16 , 19 , ___

125 , 150 , ___, ___, 225

$16 \div 4 =$

$4 \times \square = 24$

$143 + 52 =$

$81 - 42 =$

$$\begin{array}{r} 352 \\ +\ 374 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 562 \\ -\ 216 \\ \hline \\ \hline \end{array}$$

432

How many to the next 10?

$18 \div 2 =$

$21 \div 3 =$

$38 + 6 - 3 =$

My score

____

12

Answers

Name:

300 + 8 + 50 =

385

348 - 20 = 328

348 - 200 = 148

PAL 3:2
Challenge
Week 3

10 , 13 , 16 , 19 , 22

125 , 150 , 175 , 200 , 225

16 ÷ 4 =

4 x 6 = 24

143 + 52 =

195

81 - 42 =

39

$$\begin{array}{r} 352 \\ +\ 374 \\ \hline 726 \end{array}$$

$$\begin{array}{r} 562 \\ -\ 216 \\ \hline 346 \end{array}$$

432

How many to the next 10?

8

18 ÷ 2 = 9

21 ÷ 3 = 7

38 + 6 - 3 =

41

My score

12

Additional Resources

https://www.topmarks.co.uk/maths-games/hit-the-button

https://www.topmarks.co.uk/maths-games/daily10

- Choose level 2
- Then multiplication or division

https://www.topmarks.co.uk/Search.aspx?q=year%203

- Select Maths
- Then select Key Stage 2
- Choose a game or skill of you choice.

https://www.bbc.co.uk/bitesize/tags/zmyxxyc/year-3-and-p4-lessons


Well done everyone! Thank you for continuing to work so hard. Remember to photograph a piece of your work and email it to your teacher.
Stay safe and we'll see you soon!