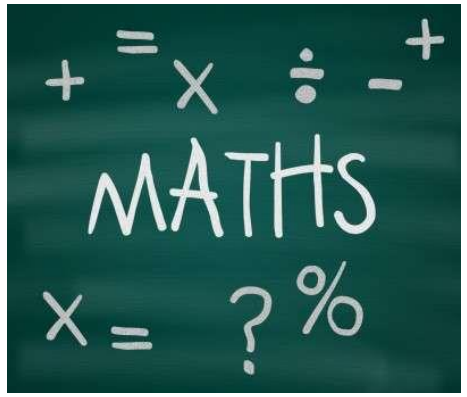
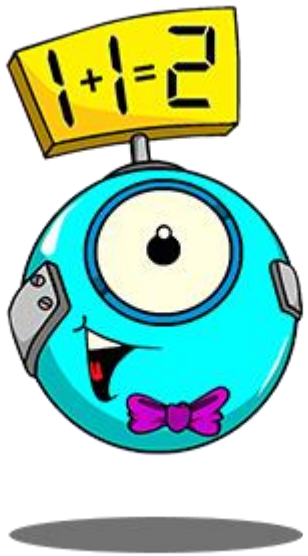


Maths

Week Commencing 6th July

White Rose Maths - https://whiterosemaths.com/homelearning/year-5/

Remember you don't have to print these sheets if you don't want to!! Just do your best.



Mathsbot shows the challenge questions.

Try them if you like but don’t worry if you cant complete them! ☺

Session 1 – regular and irregular polygons

1. Watch the video clip for today's teaching.

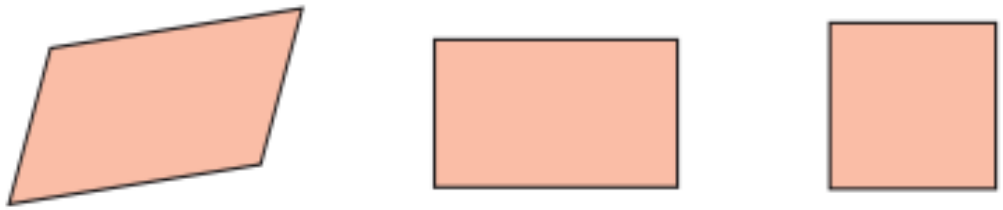
2. Complete the questions on the next few pages.

Also, have a look at the BBC Bitesize Daily activities for extra learning if you like. https://www.bbc.co.uk/bitesize/dailylessons

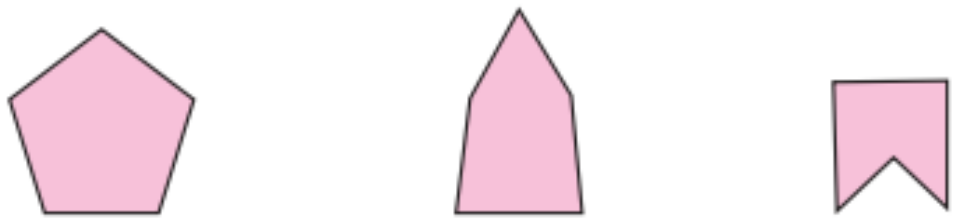
3 One polygon in each set is regular. Tick the regular polygon.

a)

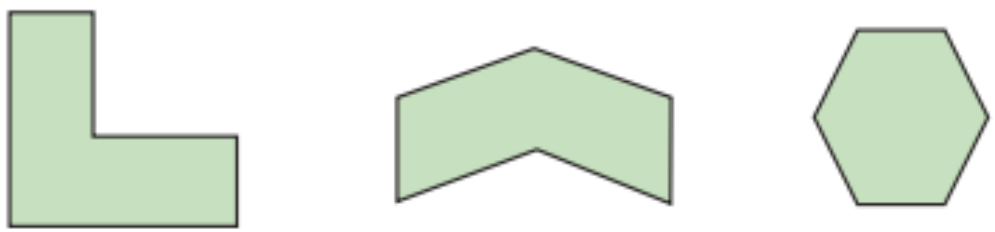
b)



c)

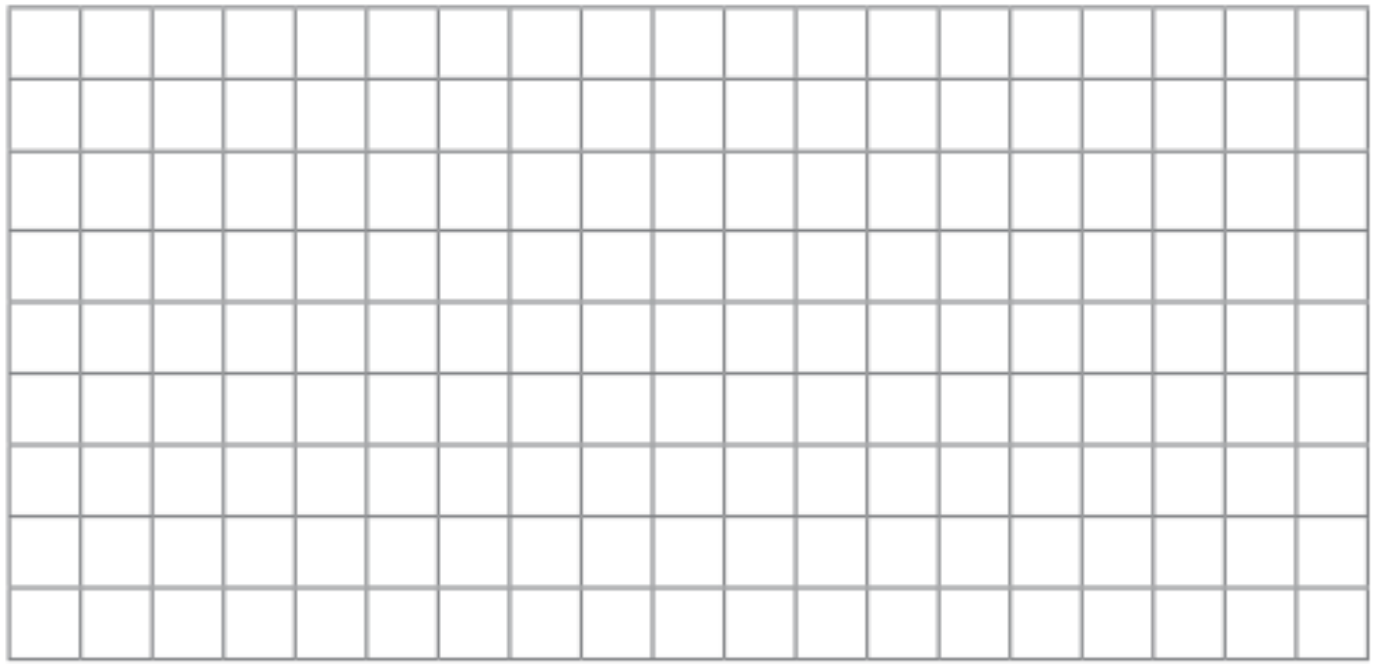


d)



How did you know which one was regular without measuring?

4 Draw two regular and two irregular polygons on the grid.

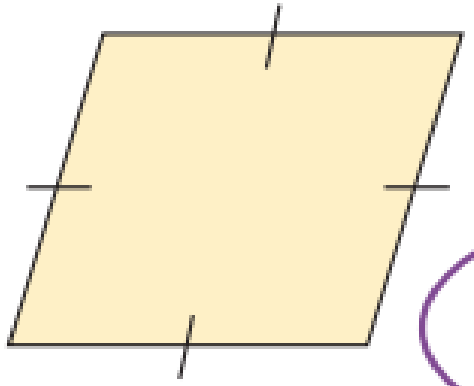


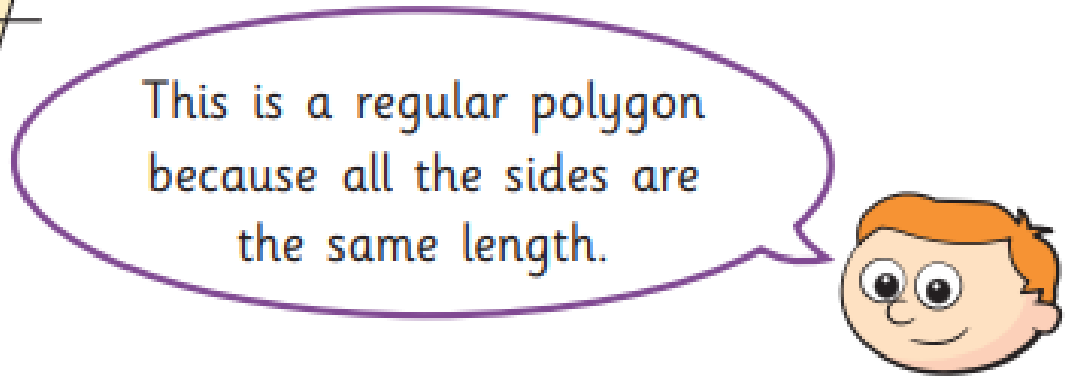
Compare your polygons with a partner.

What is the same and what is different?

Or on a piece of paper!

5 Here is a rhombus.



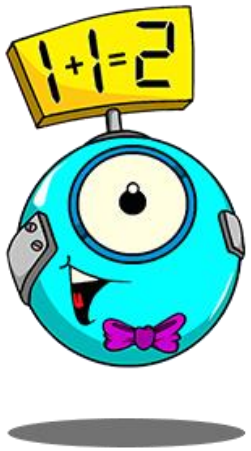


Do you agree with Ron? _____

Explain your answer.

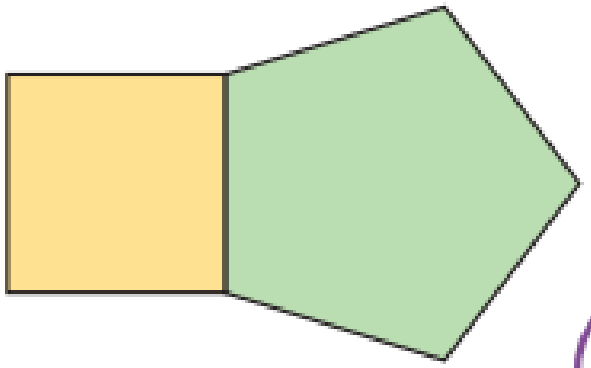
_____

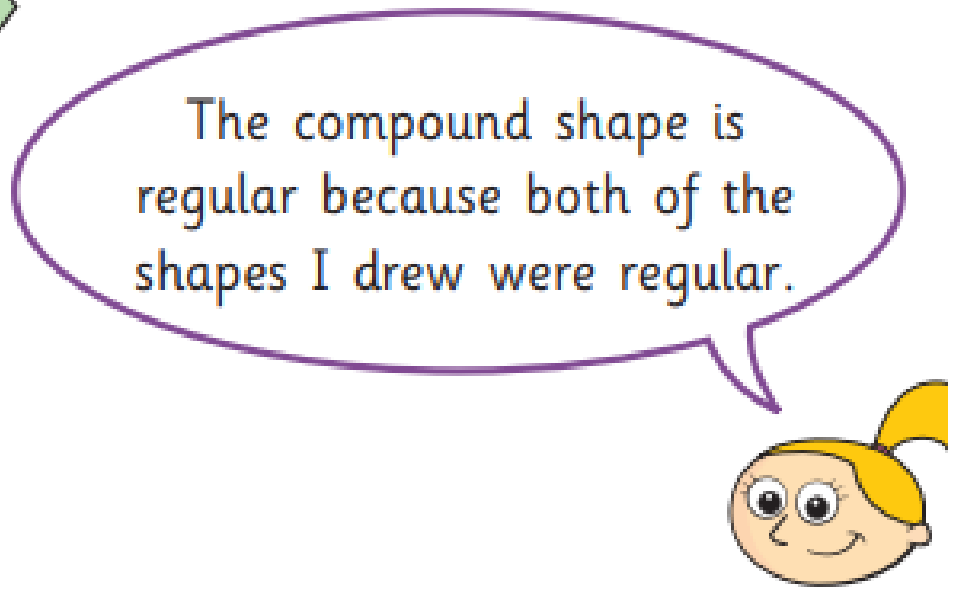
_____



Challenge Question

6 Eva has drawn a square and a regular pentagon.





Do you agree with Eva? _____

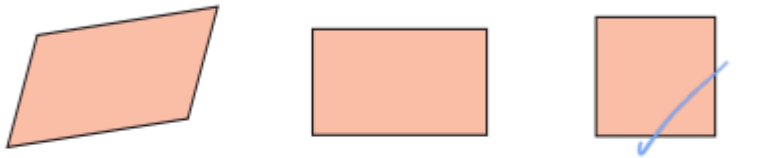
Explain your answer.

Answers:

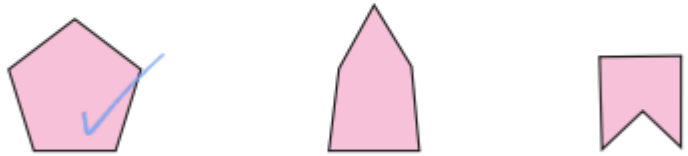
3 One polygon in each set is regular. Tick the regular polygon.

a)

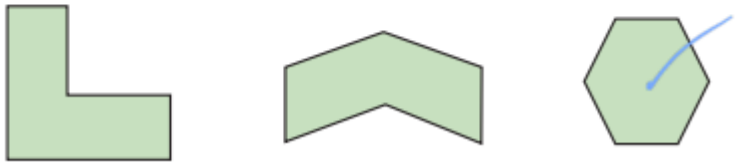
b)



c)



d)

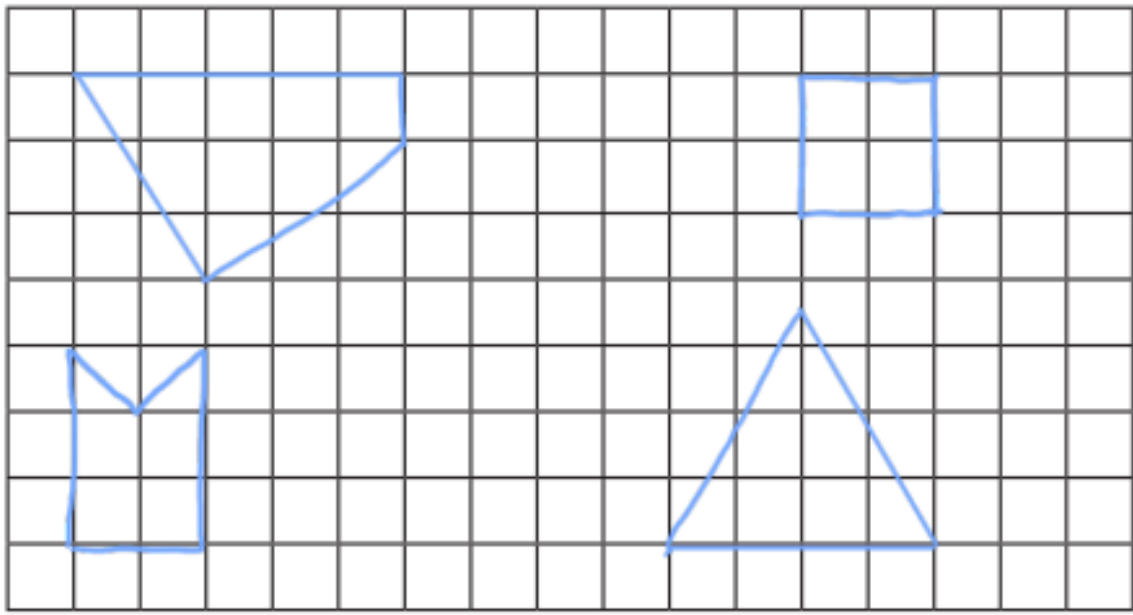


How did you know which one was regular without measuring?

All the sides are equal/same length.

4 Draw two regular and two irregular polygons on the grid.

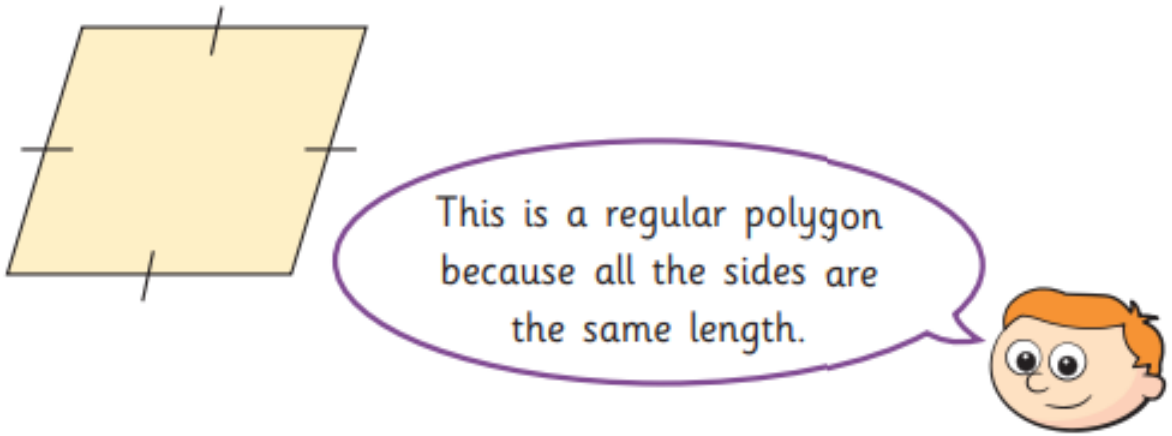
e.g.



Compare your polygons with a partner.

What is the same and what is different?

5 Here is a rhombus.

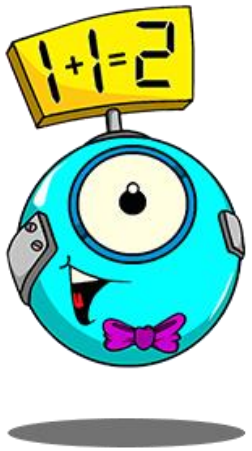


Do you agree with Ron? No

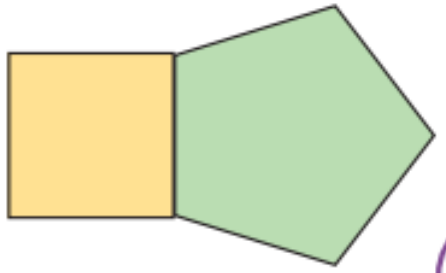
Explain your answer.

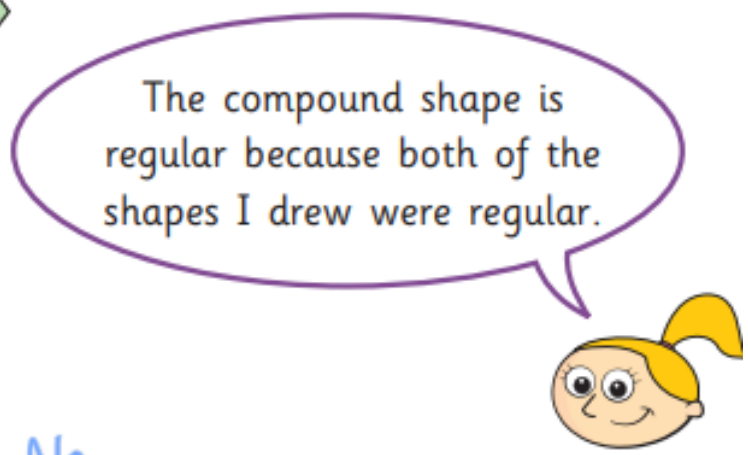
The angles are not all equal.

Challenge answer



6 Eva has drawn a square and a regular pentagon.





Do you agree with Eva? No

Explain your answer.

To be a regular shape/polygon ALL angles AND sides must be equal. In this shape there would be different lengths of sides and different angles- with the square having 90 degree angles and the pentagon has more than 90 degrees in each angle.

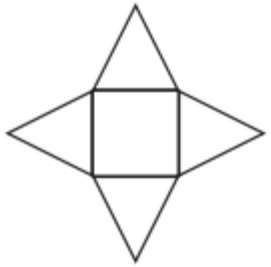
Session 2 –Reasoning about 3D shapes

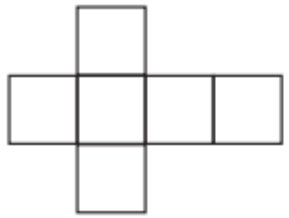
1. Watch the video clip for today's teaching.

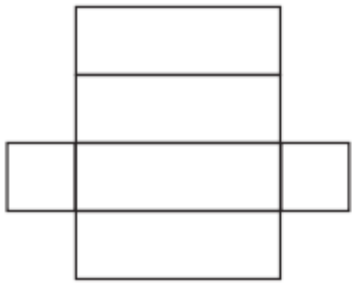
2. Complete the questions on the next few pages.

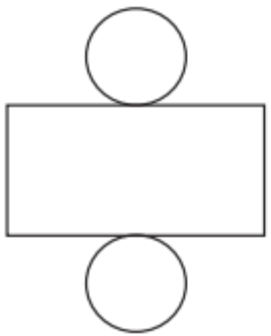
Also, have a look at the BBC Bitesize Daily activities for extra learning if you like. https://www.bbc.co.uk/bitesize/dailylessons

1 Match the net to the correct label.









cube

cylinder

square-based pyramid

cuboid

2 Complete the sentences.

a) The faces of a _____ are all square.

b) A square-based pyramid has ☐ triangular faces and ☐ square face.

c) The net of a _____ is made up of 2 circles and a rectangle.

3

The net of a cuboid is made up of 4 rectangles and 2 squares.

Whitney

The net of a cuboid is made up of 6 rectangles.

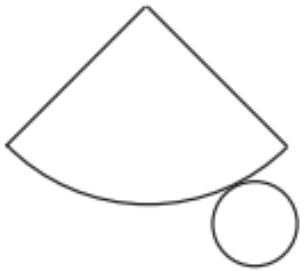
Rosie

Who do you agree with? Circle your answer.

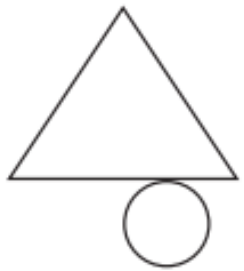
Whitney **Rosie** **both of them**

Explain your reasons.

4 Tick the diagram that is the net of a cone.



☐



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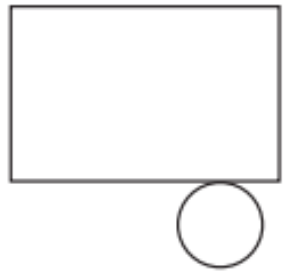
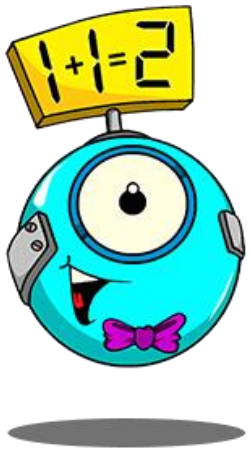
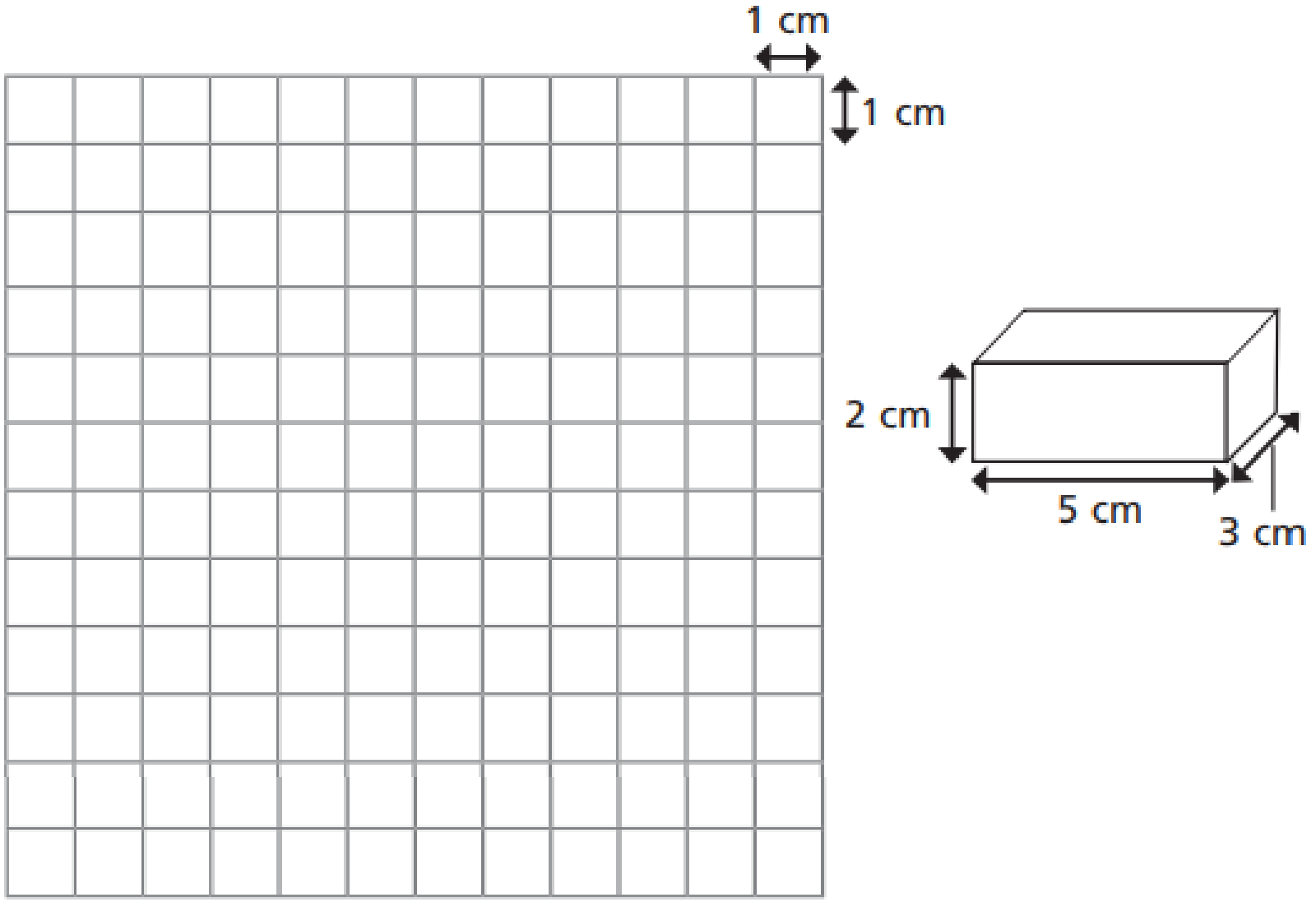


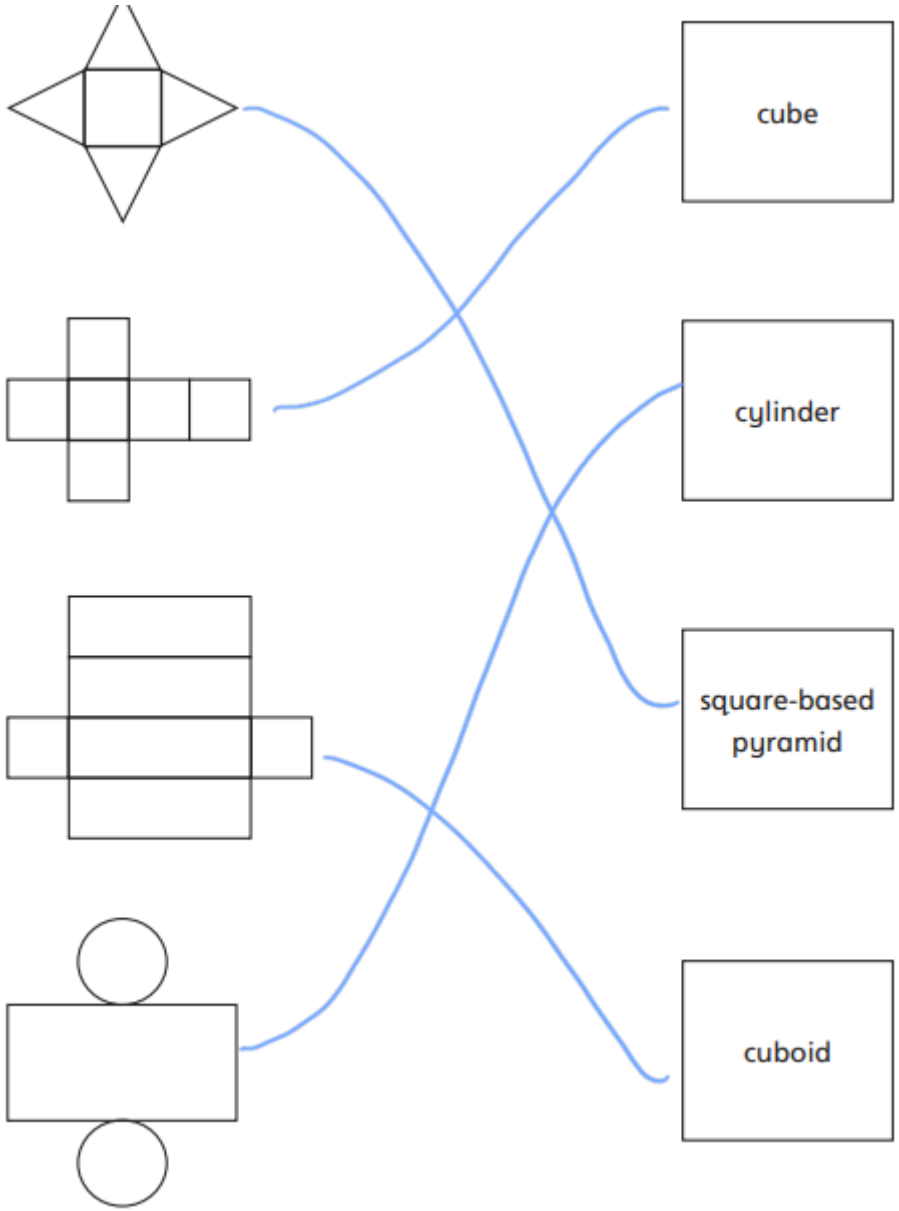
☐



6 Draw an **accurate** net for this cuboid on the squared grid.



Answers:



2 Complete the sentences.

a) The faces of a cube are all square.

b) A square-based pyramid has 4 triangular faces and 1 square face.

c) The net of a cylinder is made up of 2 circles and a rectangle.

3

The net of a cuboid is made up of 4 rectangles and 2 squares.

Whitney

The net of a cuboid is made up of 6 rectangles.

Rosie

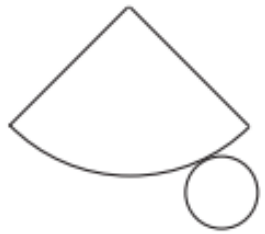
Who do you agree with? Circle your answer.

Whitney **Rosie** **both of them**

Explain your reasons.

Whitney is sometimes right if a cuboid has square faces. Rosie is always right as a square is a type of rectangle.

4 Tick the diagram that is the net of a cone.



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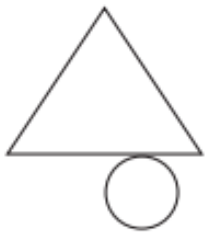

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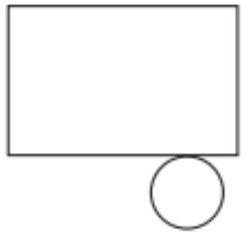


☐

Session 3 –Reflection

1. Watch the video clip for today's teaching.

2. Complete the questions on the next few pages.

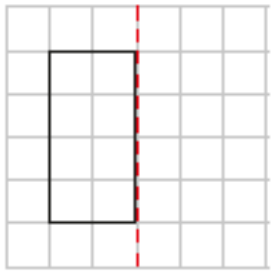
You DO NOT need a protractor for this. You need to use your knowledge of angles on a straight line (180 degrees)

Also, have a look at the BBC Bitesize Daily activities for extra learning if you like. https://www.bbc.co.uk/bitesize/dailylessons

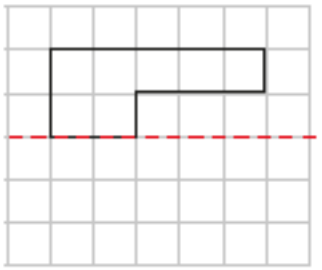
Reflection

1 Reflect each shape in the mirror line.

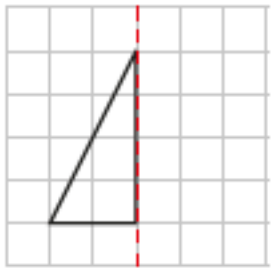
a)



d)

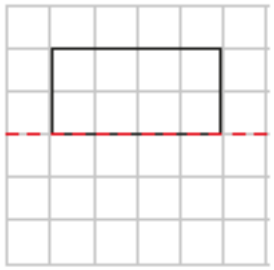


b)

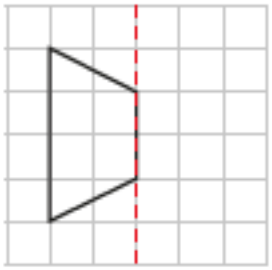


e)

c)

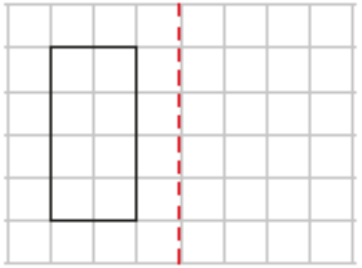


f)

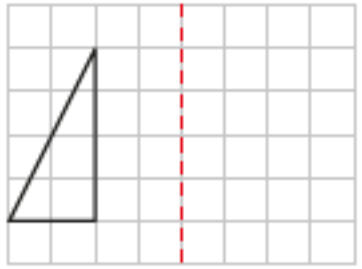


2 Reflect each shape in the mirror line.

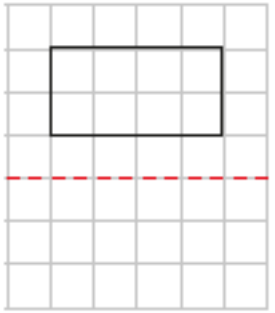
a)



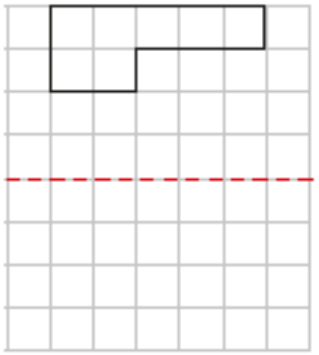
b)



c)

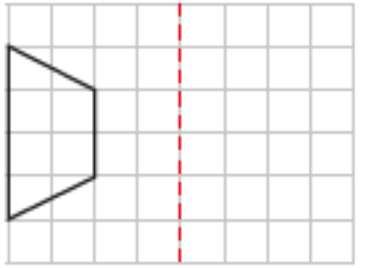


d)



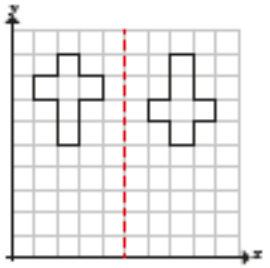
e)

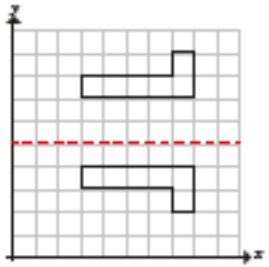
f)

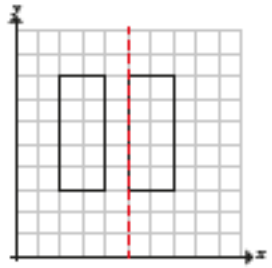


3 Which diagrams show a correct reflection in the given mirror line?

Tick your answers.



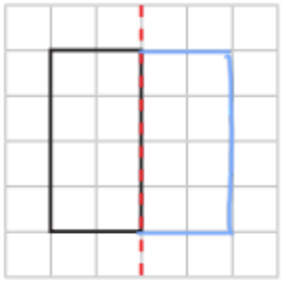




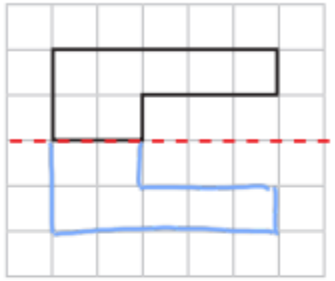
Answers:

1 Reflect each shape in the mirror line.

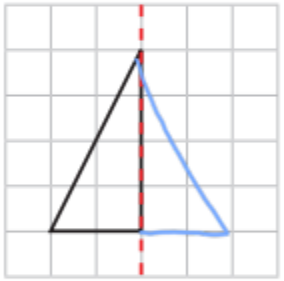
a)



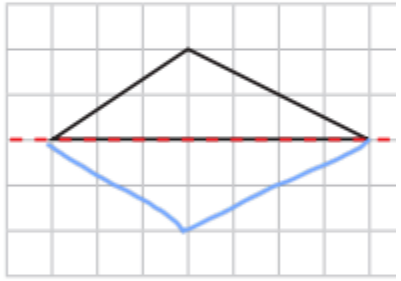
d)



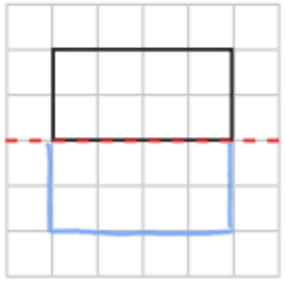
b)



e)



c)



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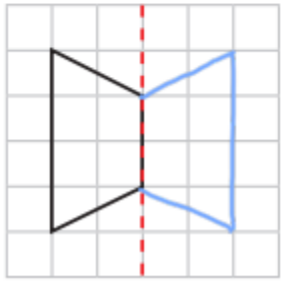
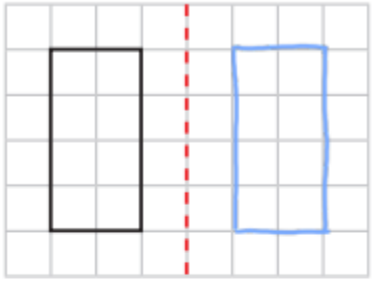
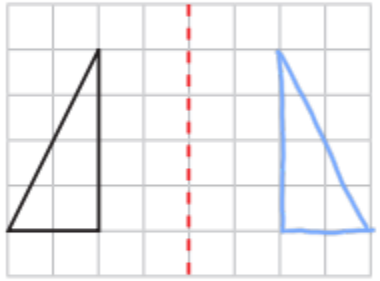


2 Reflect each shape in the mirror line.

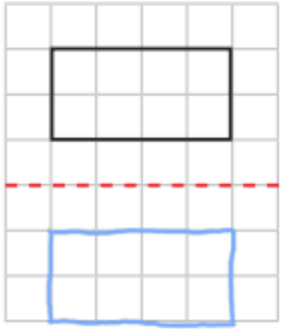
a)



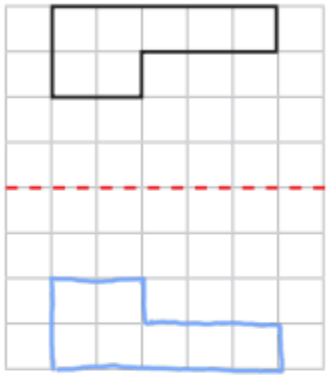
b)



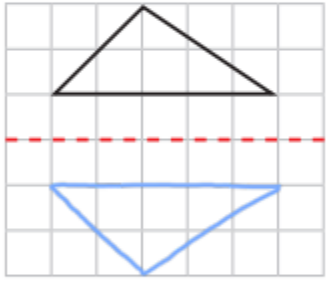
c)



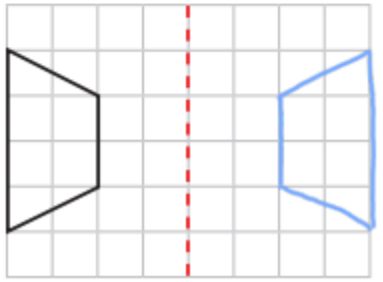
d)



e)

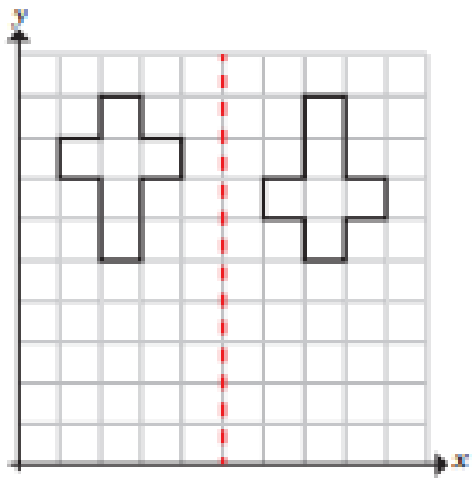


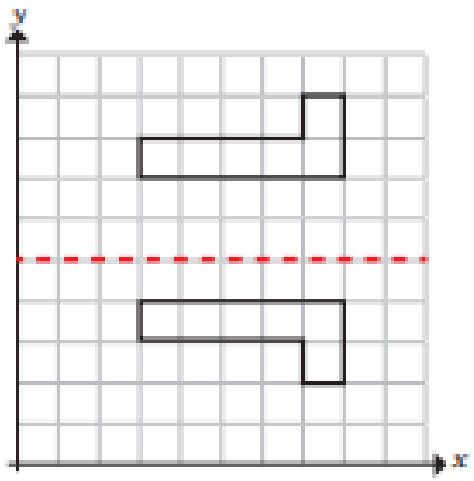
f)

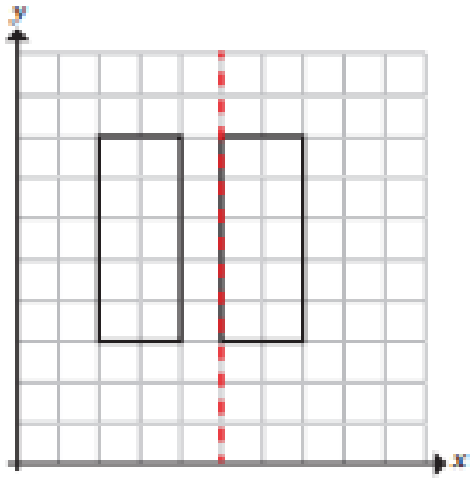


3 Which diagrams show a correct reflection in the given mirror line?

Tick your answers.







None of them!

Session 4 – Translations

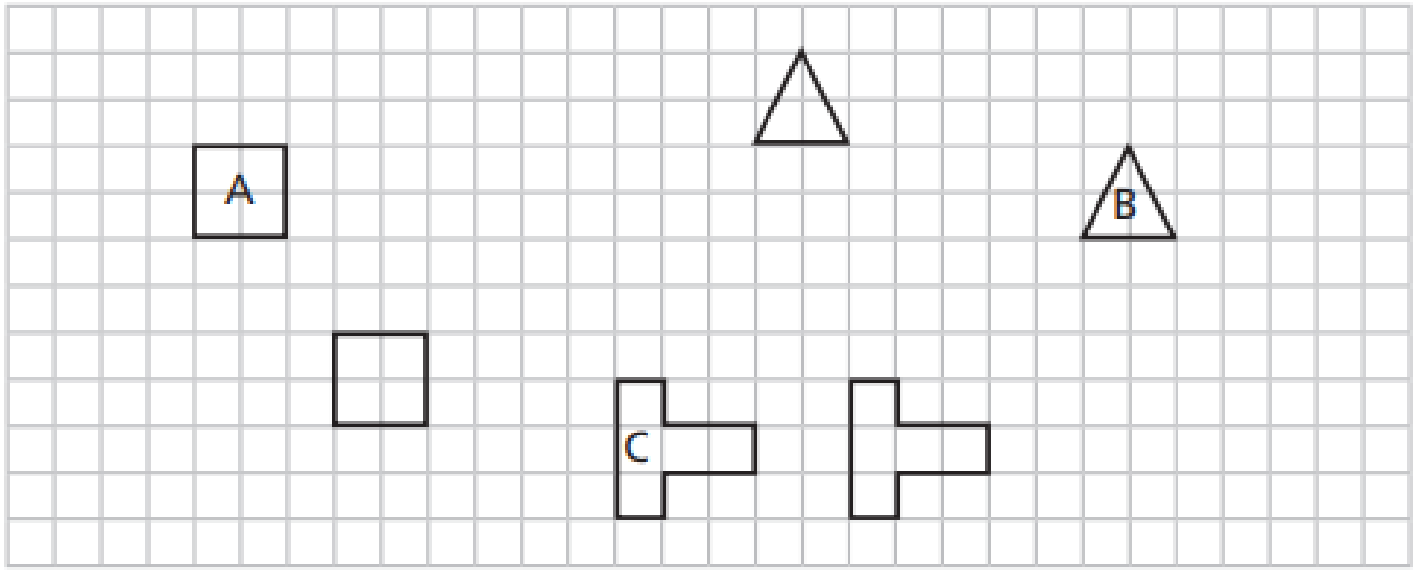
1. Watch the video clip for today's teaching.

2. Complete the questions on the next few pages.

You DO NOT need a protractor for these questions. You only need your knowledge of degrees in a full turn (360 degrees)

Also, have a look at the BBC Bitesize Daily activities for extra learning if you like. https://www.bbc.co.uk/bitesize/dailylessons

Complete the sentences to describe the translations.

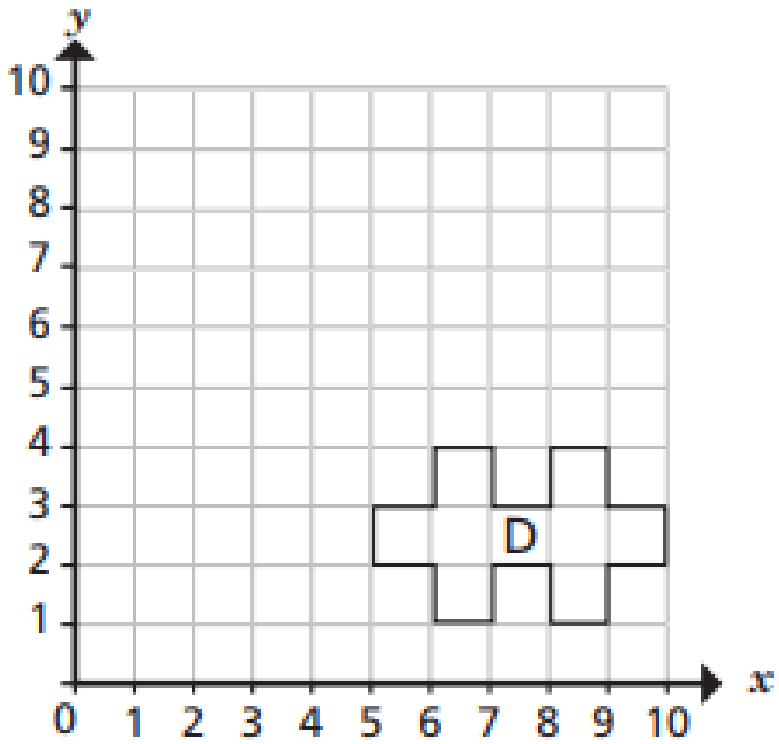


a) Shape A has been translated ☐ squares to the right and ☐ squares down.

b) Shape B has been translated ☐ squares to the _____ and ☐ squares _____

c) Shape C has been translated ☐ squares to the _____ and ☐ squares _____

5 A shape has been drawn on a coordinate grid.



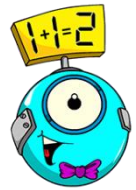
a) Translate shape D 4 squares to the left and 6 squares up.

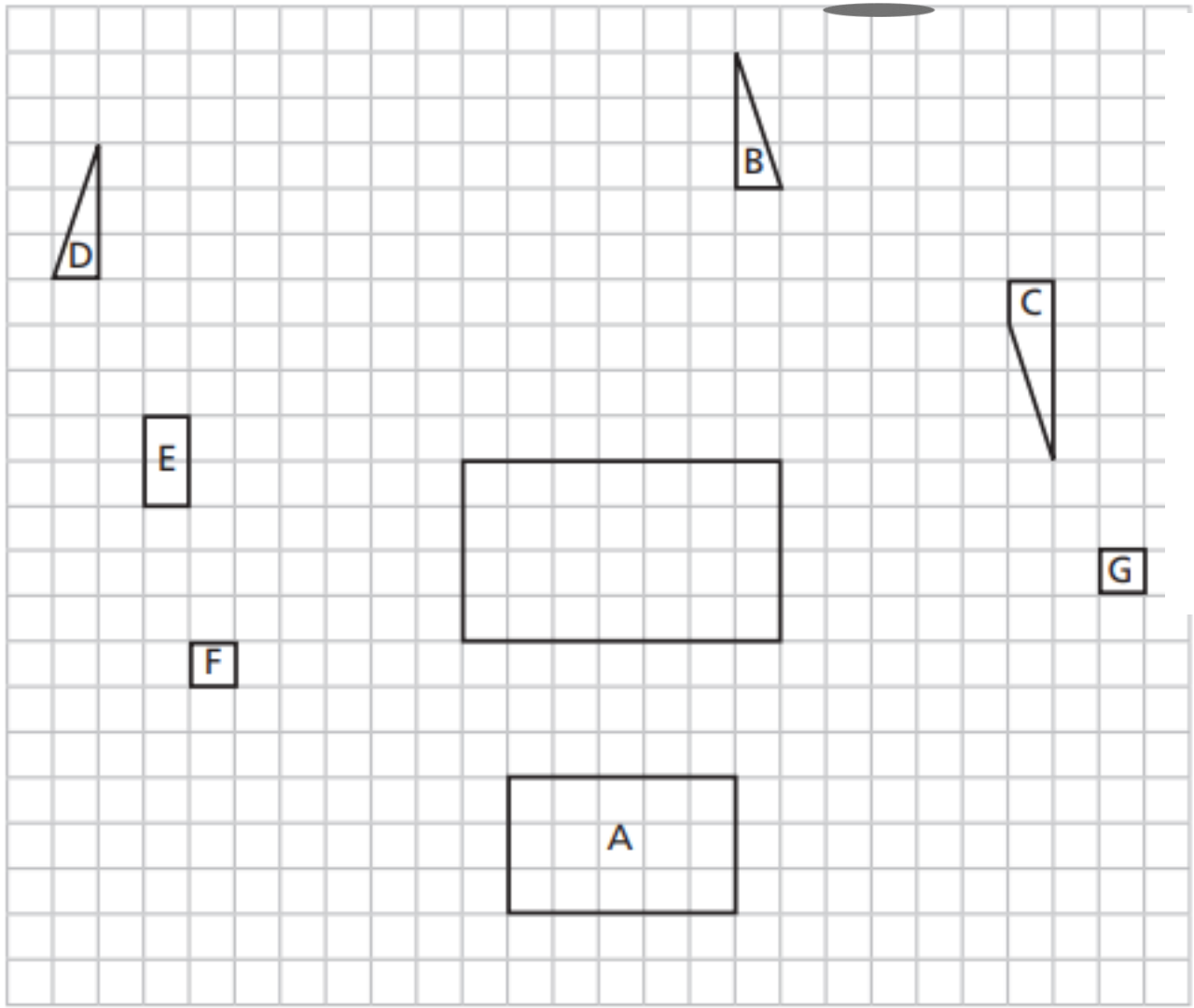
Label the new shape E.

b) Describe the translation from shape E to shape D.

What do you notice? Does this always happen?

6 Eight polygons are drawn on the grid.





a) Translate shape A 10 squares up.

b) Translate shape B 6 squares down.

c) Translate shape C 6 squares left.

d) Translate shape D 9 squares to the right and 4 squares down.

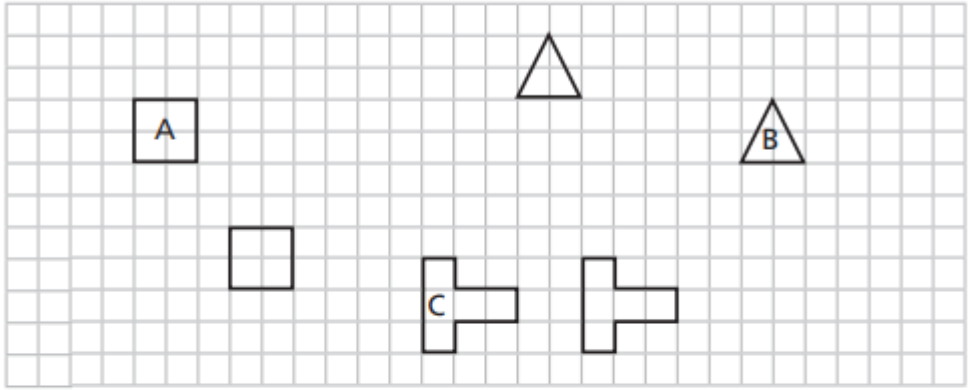
e) Translate shape E 10 squares to the right and 3 squares down.

f) Translate shape F 7 squares to the right and 3 squares up.

g) Translate shape G 9 squares to the left and 1 square up.

Answers:

4 Complete the sentences to describe the translations.

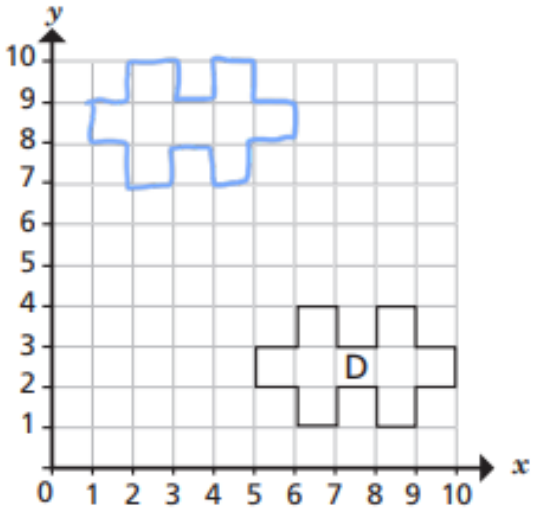


a) Shape A has been translated [3] squares to the right and [4] squares down.

b) Shape B has been translated [7] squares to the left and [2] squares up

c) Shape C has been translated [5] squares to the right and [0] squares up/down

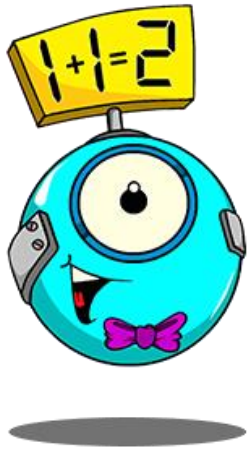
5 A shape has been drawn on a coordinate grid.



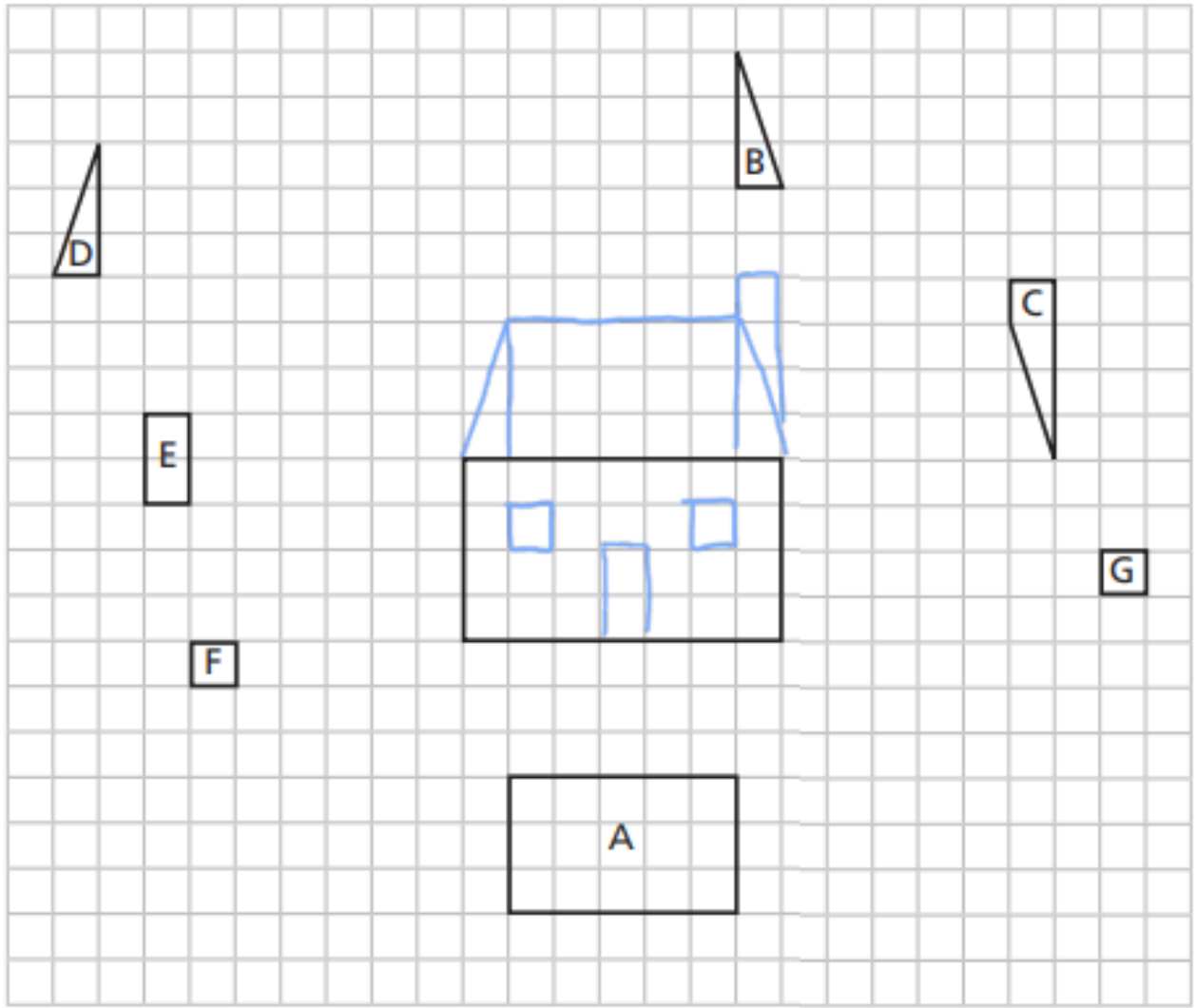
a) Translate shape D 4 squares to the left and 6 squares up. Label the new shape E.

b) Describe the translation from shape E to shape D.

4 squares to the right and 6 squares down.



6 Eight polygons are drawn on the grid.



Lesson 5 - Challenge of the week from BBC Bitesize
(Questions 1-5 are usually suitable for year 5)

https://www.bbc.co.uk/bitesize/tags/zhgppg8/year-5-and-p6-lessons