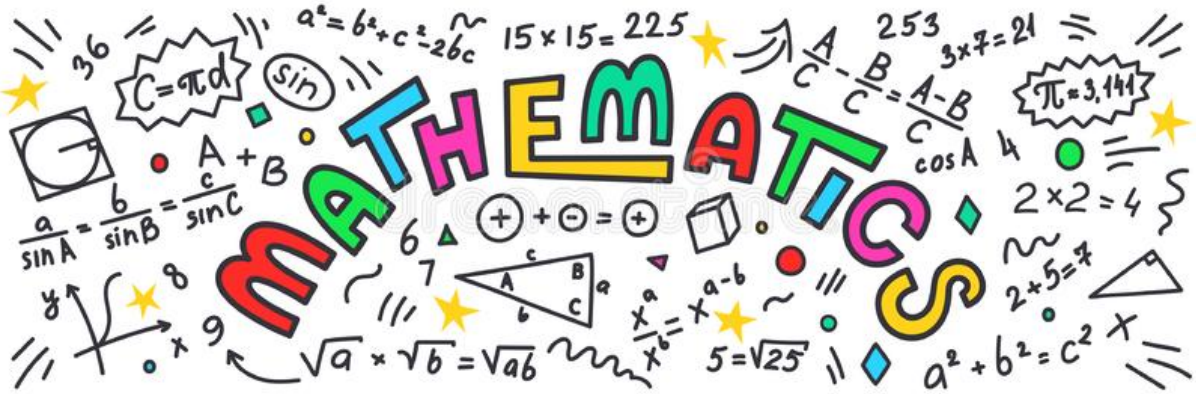
# WEEK 13

Hello! Here are this week's maths activities. There is no need to print out the sheets - just write the answers in the yellow exercise book that went home in your distance learning pack.

If you have any questions, or when you have completed your work, email me at:

Beech@newvalleyprimary.com

You can send a photo of the answers in your distance learning book or add a document as an attachment.



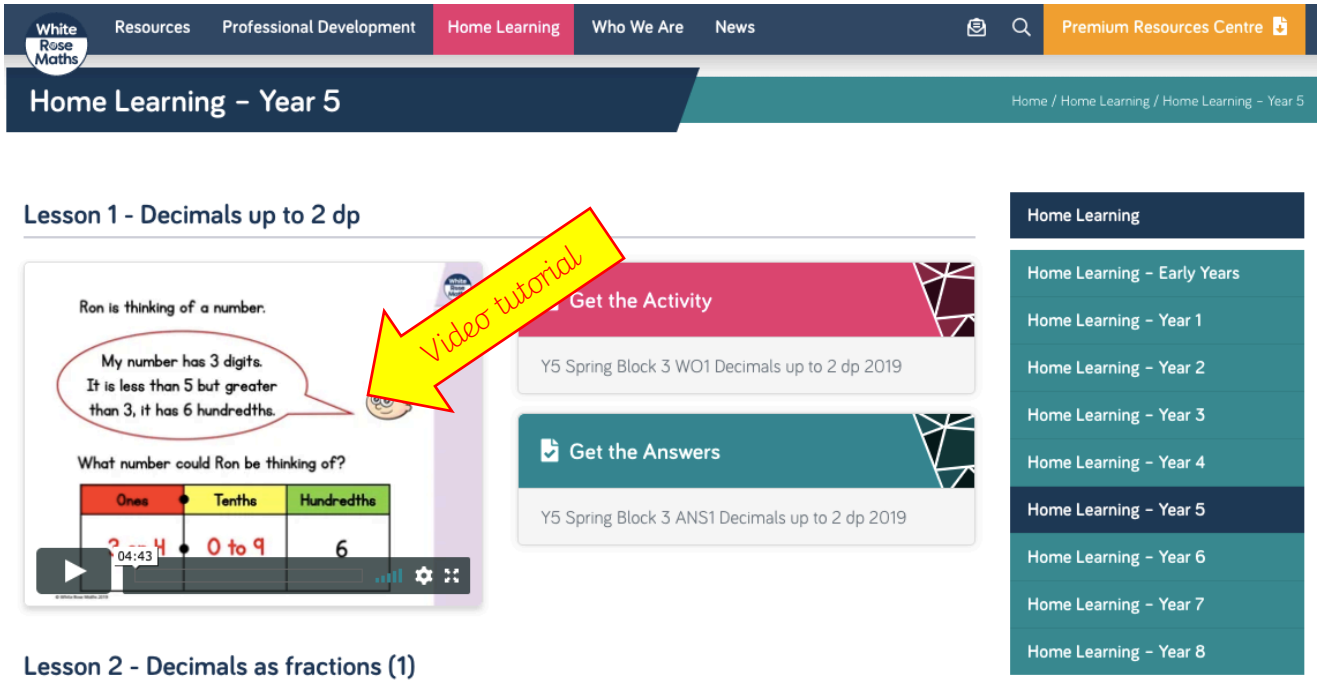
You don't have to do every single question from every day's lesson. Get as far through the lesson as you can and <u>try your best!</u>

We are going to be using the White Rose home learning resources. This resource, which we also use in school, includes video tutorials which I think will be very helpful.

If you are finding the lessons too hard (or easy) or need a bit more explanation, don't forget you can email me.

To access the video tutorials, follow this link:

https://whiterosemaths.com/homelearning/year-5/



# Week 13
# Maths Lesson 1

Don't forget to write this heading in your distance learning book.

Watch the Lesson 1 video: Regular and irregular polygons
https://vimeo.com/434626861

**Flashback 4** — Year 5 | Week 1 | Day 1

1) What is the area of a square with a side length of 6 cm?

2) What is 24 × 3?

3) Find the sum of £1,250 and £3,940

4) Write down a 4-digit number with 3 in the hundreds column.

Write which one e.g. 1st, 2nd 3rd

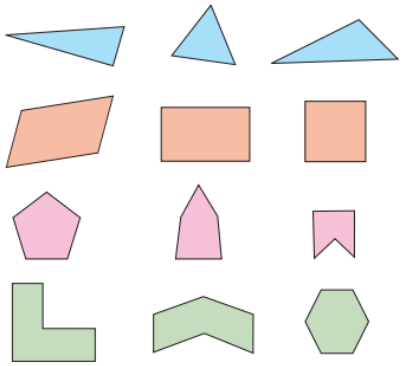
**3** One polygon in each set is regular. Tick the regular polygon.

a)

b)

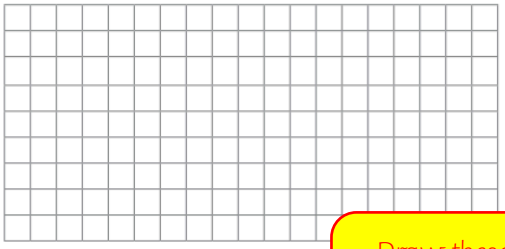
c)

d)



How did you know which one was regular without measuring?

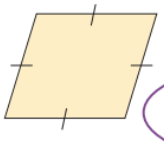
**4** Draw two regular and two irregular polygons on the grid.



Compare your polygons with a partner.
What is the same and what is different?

Draw these in your book as best you can.

**5** Here is a rhombus.



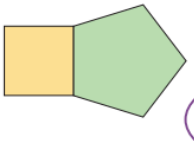
This is a regular polygon because all the sides are the same length.

Do you agree with Ron? _____
Explain your answer.

_____

_____

**6** Eva has drawn a square and a regular pentagon.



The compound shape is regular because both of the shapes I drew were regular.

Do you agree with Eva? _____
Explain your answer.

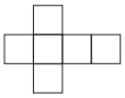
# Week 13
# Maths Lesson 2

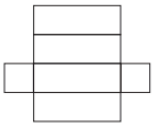
Don't forget to write this heading in your distance learning book.

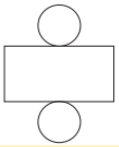
Watch the Lesson 2 video: Reasoning about 3D shapes
https://vimeo.com/434626976

**1** Match the net to the correct label.

a)

b) 

c) 

d) 

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**

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

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

Who do you agree with? Circle your answer.

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

Explain your reasons.

_____

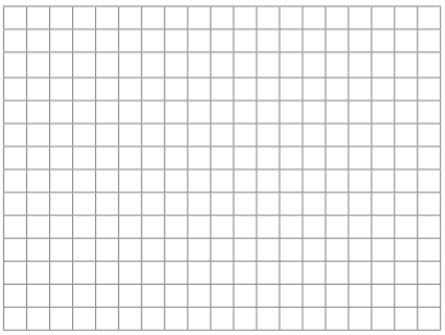
_____

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

☐ ☐ ☐

Compare answers with a partner.

**5** Draw the net for a triangular prism on the squared grid.

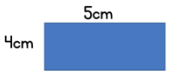


Write which one e.g. 1st, 2nd 3rd

**Flashback 4** Year 5 | Week 1 | Day 2

1) What is 253 × 3?

2) Work out the area of the rectangle




3) What is $10^2$ ?

4) What is 100 more than 9,308?

Draw this in your book as best you can.

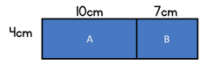
# Week 13
# Maths Lesson 3

Don't forget to write this heading in your distance learning book.

**Flashback 4** — Year 5 | Week 1 | Day 3

1) Multiply 374 kg by 6

2) What is the area of these two shapes?

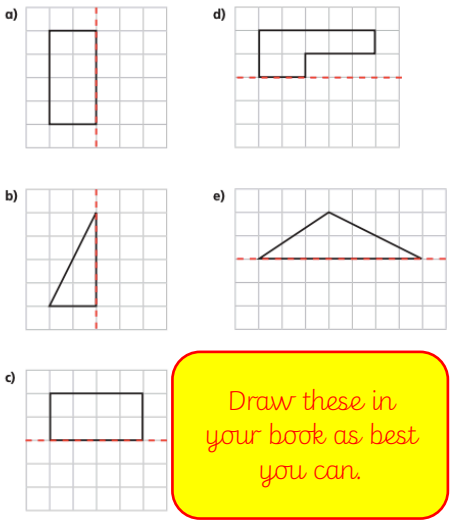



3) Write down 2 factors of 20

4) Work out 280 + 849

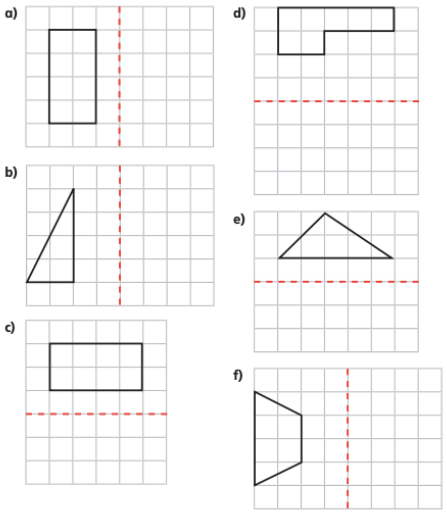
Watch the Lesson 3 video: Reflection
https://vimeo.com/434627078

**1** Reflect each shape in the mirror line.

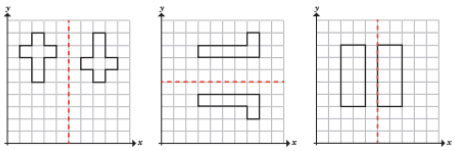


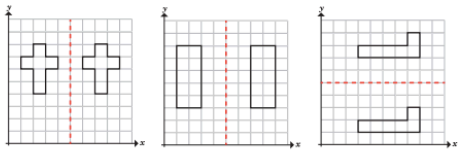

Draw these in your book as best you can.

**2** Reflect each shape in the mirror line.



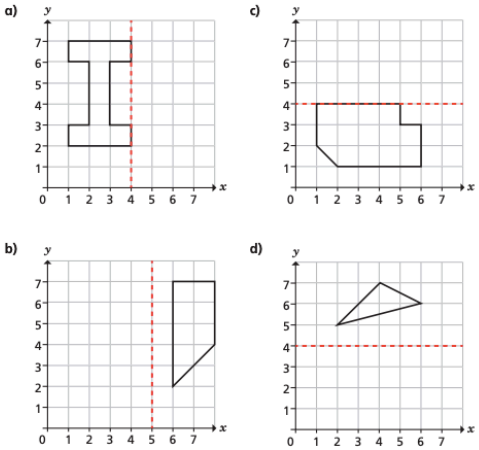

**3** Which diagrams show a correct reflection in the given mirror line?
Tick your answers.



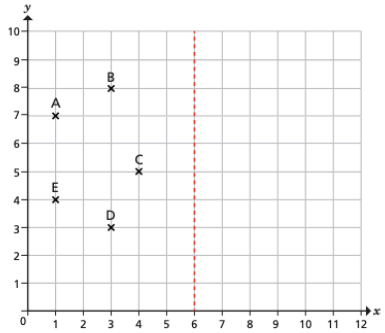


Talk to a partner about the mistakes that have been made.

**4** Reflect the objects in the given mirror lines.




**5** Five points are plotted on a coordinate grid.




a) Join the points to form a polygon. This is the object.
What type of polygon is the object? _____

b) Reflect the object in the given mirror line.
What type of polygon is the image? _____

c) Label the reflected vertices P, Q, R, S and T.
Write the new coordinates.

P ( ___ , ___ ) Q ( ___ , ___ ) R ( ___ , ___ )

S ( ___ , ___ ) T ( ___ , ___ )

d) The image and the object are identical polygons.
Is this statement true or false? _____
Talk about it with a partner.

# Week 13
# Maths Lesson 4

Don't forget to write this heading in your distance learning book.

**Flashback 4** — Year 5 | Week 1 | Day 4

1) Multiply 1,305 by 6

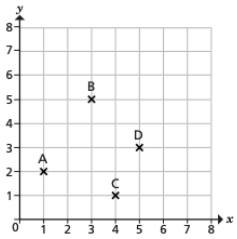
2) A square has an area of 64 $m^2$
What is the length of one of its sides?

3) Which of these is a prime number?
10, 11 and 15

4) Find the sum of 199 and 198

Watch the Lesson 4 video: Translation
https://vimeo.com/434627281

**1** Four points have been plotted on a coordinate grid.




**a)** Translate each point 3 to the right.

**b)** Complete the table to show the coordinates of each point before and after the translation.

| Point | Coordinates before | Coordinates after |
|---|---|---|
| A | | |
| B | | |
| C | | |
| D | | |

What do you notice?

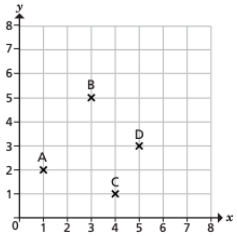
**c)** Which part of the coordinate stayed the same? _____

**d)** Which part of the coordinate changed? _____

**e)** Point E has the coordinates (12, 4). It is translated 3 to the right.

What are the coordinates of the translated point? ( ☐ , ☐ )

**2** Four points have been plotted on a coordinate grid.




**a)** Translate each point 2 up.

**b)** Complete the table to show the coordinates of each point before and after the translation.

| Point | Coordinates before | Coordinates after |
|---|---|---|
| A | | |
| B | | |
| C | | |
| D | | |

What do you notice?

**c)** What has stayed the same in each coordinate? _____

**d)** What has changed? _____

**e)** Point E has the coordinates (12, 4).
It is translated 2 up.
What are the coordinates of the translated point? ( ☐ , ☐ )

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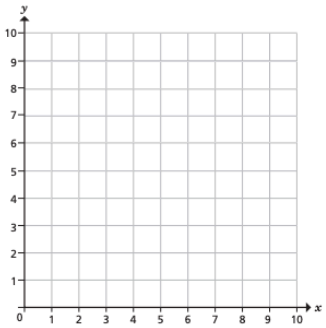
**3** Write the coordinates of each point after the given translation.
You can use the coordinate grid to help you.




**a)** (2, 7) is translated 4 right and 3 down. ( ☐ , ☐ )

**b)** (9, 2) is translated 8 left and 5 up. ( ☐ , ☐ )

**c)** (10, 0) is translated 10 left. ( ☐ , ☐ )

**d)** (0, 4) is translated 6 right and 4 down. ( ☐ , ☐ )

Is it possible to work this out without drawing the points?

**4** The coordinates of the vertices of a rectangle are (18, 4), (18, 7), (23, 4) and (23, 7).
The rectangle is translated 10 left and 2 down.
What are the coordinates of the vertices now?

( ☐ , ☐ ) ( ☐ , ☐ ) ( ☐ , ☐ ) ( ☐ , ☐ )

**5** Point M has the coordinates (12, 19).
It is translated 21 right and 9 down.
Alex and Amir are working out the coordinates of the translated points. Here are their answers.

**Alex** (3, 38) **Amir** (33, 10)

Who do you agree with? _____

Talk about it with a partner.

**6** Point X has the coordinates (17, 21).
After being translated, it now has the coordinates (11, 35).
Describe the translation.

_____

**7** A pentagon has been translated.
The table shows the coordinates of each vertex before and after the translation. Some of the information is missing.

| Before | After |
|---|---|
| ( ☐ , 7) | (5, 13) |
| (2, ☐ ) | (5, 20) |
| (11, 7) | (14, ☐ ) |
| ( ☐ , 14) | (14, ☐ ) |
| ( ☐ , ☐ ) | (10, 25) |

**a)** Complete the table.

**b)** Describe the translation.

_____

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# Week 13
# Problem Solving

Don't forget to write this heading in your distance learning book.

Want to grow your brain some more? Have a go at these...

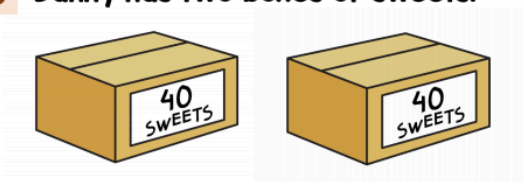
**1** Which of these are equal to 15?

| | |
|---|---|
| 10 + 5 | 5 + 5 + 5 |
| 20 − 5 | 1 + 5 |

**2** A rope measures 30 metres.

The rope is cut into 10 equal sized pieces.
What is the total length of 5 of these pieces?

**3** Danny has two boxes of sweets.




He puts the sweets into smaller bags.

There are 5 in each bag.

How many bags can Danny fill using all the sweets?

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## Fancy something a little harder? Try these...

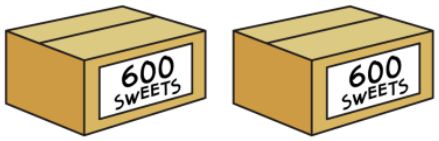
**1** Circle all the numbers equivalent to 0.25

0.4 $\frac{50}{100}$ $\frac{25}{100}$ $\frac{1}{4}$

**2** A rope measures 2.8 metres.

The rope is cut into 10 equal sized pieces.
What is the total length of 5 of these pieces?

**3** Sweets come in boxes of 600
Danny has two boxes of sweets.




He packs the sweets into smaller bags.

There are 21 in each bag.

How many bags can Danny fill using all the sweets?

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