

## TIMETABLE FOR CLASS 6 – Week beginning 8.6.20

Hi Class 6,

I hope last week was a good one and you enjoyed the work set for you. This week, I have set some English work based on the Titanium video and some more tasks on the Mayans. As with last week, the weekly timetable below is still written for all children in Class 6, whether at home, in a Class 6 pod or key worker group. If you are in one of the Class 6 pods, then the activities set out below are to be completed during the week **but day 1 and 2 are to be completed when you are in school**. That means if you are in Pod A, you will complete days 1 and 2 on Monday and Tuesday, but if you are in Pod B, you will complete days 1 and 2 on Thursday and Friday. I hope that makes sense!

I have really enjoyed receiving emails from you and hearing about what you have been doing. Whether you are in a school pod, the key worker group or at home, please remember that I am always available on the Class 6 account. It would be great to hear from you.

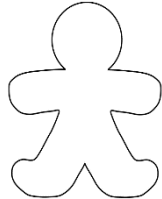
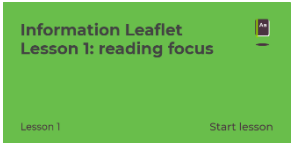



Take care,

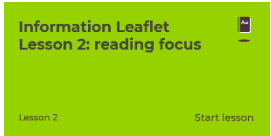

From Mr Penny

**PE**  
**9:00 – 9:35 PE with Joe Wicks @ <https://www.youtube.com/channel/UCAxW1XT0iEJo0TYIRfn6rYQ>**

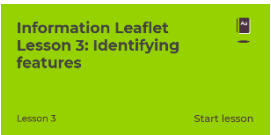
**Stay Active As A Family At Home**  
**See the SASP website to find many physical activities you can do at home.**  
<https://www.sasp.co.uk/home-family-activities>

	<b>Maths (60 mins)</b>	<b>Literacy (60 mins)</b>	<b>Other (60 mins)</b>	<b>Ongoing</b>
<b>Day 1 (Teacher led for Class 6 pods)</b>	Open the following document on the school website: <b>Flashback 4 week beginning 8.6.20</b> Complete Day 1 questions. Mark with answers on the next page.  White Rose Maths – Summer Term Week 6 – Lesson 1 – Fractions to percentages  <a href="https://whiterosemaths.com/homelearning/year-6/">https://whiterosemaths.com/homelearning/year-6/</a>  Watch the video. Then complete the questions on the worksheet attached to this document under the spellings. There is also an answer sheet to mark your work when completed.	Following the work last week, we are going to do some narrative writing using the titanium video. Today, I would like you to write your narrative thinking about the storyboard and plans you wrote last week. I would like you to write a descriptive piece, thinking carefully about the events on the video, and the feelings of the boy.  You will need to write about the boy lifting his head and seeing the devastation around him, describe what it looks like, what sounds there would be and possibly smells. Then think about how he walks down the corridor, what he is thinking at this point and how he is feeling. You may mention the panicked teacher on the phone at this point. Now, you will need to include some descriptions on his next movements, what he sees through the glass doors and how he reacts to seeing the police car. Remember to keep adding in his feelings; perhaps with some show not tell e.g. his heart pounding, the boy pushed the door open. Then finally, for today, you will need to write about his movement towards the bike and the panic of the teacher as she talks quickly to the police officer. Is it his bike or does he steal it? What does the teacher say to the police officer?  Once you have reached this point, I would stop for today and then carry on tomorrow.  I have attached an example piece, which you could use to support your writing.  You may decide to swap from first to third person or vice versa and that is fine, but please don't change once you have started writing.  When you have finished your writing for the day, it would be a good idea to look at your planning and storyboard in preparation for tomorrow.	<b>History – Mayans</b> Today, I would like you to find out about the Mayans in the Lacandon rainforest. Watch the following clip and discover more about the Ancient Maya and Maya who live in the rainforest today.  <a href="https://www.bbc.co.uk/bitesize/clips/z2pfgk7">https://www.bbc.co.uk/bitesize/clips/z2pfgk7</a>  Whilst watching the video, I would like you to write down some facts you find out. Try to write down between 5 and 10 facts.  <b>Mayan quiz</b> Can you write a quiz about the Mayans?  After all of the work you have completed over the last few weeks, you should be a bit of an expert on the Mayans. Today, I would like you to write a quiz on the Mayans made up of between 5 and 10 questions.  Once you have written you quiz questions, could you test your parent's knowledge, or could you contact a friend from Class 6 and see how they get on with your quiz?  You can also send them to me via the class email and I will let you know how I get on!	<b>Reading</b> (everyday 15mins) <b>Verbal tables</b> (everyday 10 minutes) <b>Spellings</b> (either print out the sheet or attached, or create your own) <b>Contact</b> a friend or relative for a good chat

<p><b>Day 2</b> <b>(Teacher led for Class 6 pods)</b></p>	<p>Open the following document on the school website: <b>Flashback 4 week beginning 8.6.20</b> Complete Day 2 questions. Mark with answers on the next page.</p> <p>White Rose Maths – Summer Term Week 6 – Lesson 2 – Equivalent FDP</p> <p><a href="https://whiterosemaths.com/home/earning/year-6/">https://whiterosemaths.com/home/earning/year-6/</a></p> <p>Watch the video. Then complete the questions on the worksheet attached to this document under the spellings. There is also an answer sheet to mark your work when completed.</p>	<p>Today, you are going to continue your narrative writing from yesterday. I would like you to continue the writing from the boy cycling up until the point he leaves home for the woods. You will need to think about how quickly he cycled, how he feels and what the weather is like. Now you will need to describe how he arrives at home and throws the bike down onto the front lawn. Then think about how he enters the house, what he sees on the TV screen and how he feels at this point. Following this, you will need to write about his packing, the police arriving and his escape from the house through the back door.</p> <p>Please don't worry about writing past this point of the video, as I want you to focus on description with this writing.</p> <p>I have attached an example piece, which you could use to support your writing.</p> <p>Once you have finished your writing for today, I would like you to have a read through and make any edits to your punctuation or grammar you can see.</p>	<p><b>PSHE – It's good to be me</b></p> <p>As part of our transition work this half term, we will be thinking about ourselves. We will begin with thinking about our skills and interests at this point in year 6 and what we may look to develop.</p> <p>I would like you to draw a basic outline of a human e.g.</p> <p>On the inside, I would like you to write down current interests (e.g. history, gymnastics, reading), skills (e.g. football, times tables knowledge, drawing) and personality traits (e.g. kindness, patience, hardworking) you have now. Then on the outside, I would like you to write down an interest, skill or possibly a personality trait you would like to develop.</p> 	<p><b>Reading</b> (everyday 15mins) <b>Verbal tables</b> (everyday 10 minutes) <b>Spellings</b> (either print out the sheet or attached, or create your own) <b>Contact</b> a friend or relative for a good chat</p>
<p><b>Day 3</b></p>	<p>Open the following document on the school website: <b>Flashback 4 week beginning 8.6.20</b> Complete Day 3 questions. Mark with answers on the next page.</p> <p>MyMaths – Decimal place value This is a revision task looking at decimals and place value. You should be fine with the homework task, however do make sure you look at the lesson if you are struggling.</p>	<p>For the next 3 days, we will be using the Oak National Academy website again. I have attached the help sheet to help you navigate around the website under the spellings on this timetable.</p> <p>The focus is on <b>Information leaflets</b> this week. Today you will be completing a session with a reading focus.</p> <p>Firstly, click on the link below: <a href="https://www.thenational.academy/year-6/english/information-leaflet-lesson-1-reading-focus-year-6-wk2-1">https://www.thenational.academy/year-6/english/information-leaflet-lesson-1-reading-focus-year-6-wk2-1</a></p> <ol style="list-style-type: none"> <li>1. Watch the video and complete the questions with the teacher.</li> <li>2. Pause the video, close the video and move onto the independent task in your book.</li> <li>3. Click on the 'Resume video' box at the top of the page and mark your work.</li> </ol> <p>Stop the video and don't complete the spellings section as I have set your spellings below.</p> 	<p><b>History – Front cover for Maya work</b></p> <p>You have worked hard on the Mayans over the last few weeks and I would like you to design a front cover for your work.</p> <p>Think back to the work you covered on the Mayan temples, Mayan glyphs, the number system and Mayan patterns.</p> <p>Your front cover design should be fun to look at but also try to link it to a part of your learning. Perhaps you could include a picture of a temple, some glyphs or a Mayan God.</p>  	<p><b>Reading</b> (everyday 15mins) <b>Verbal tables</b> (everyday 10 minutes) <b>Spellings</b> (either print out the sheet or attached, or create your own) <b>Contact</b> a friend or relative for a good chat</p> 
<p><b>Day 4</b></p>	<p>Open the following document on the school website: <b>Flashback 4 week beginning 8.6.20</b> Complete Day 4 questions. Mark with answers on the next page.</p>	<p>We are using the Oak National Academy resources again and today you will be completing a session with a reading focus.</p> <p>Firstly, click on the link below: <a href="https://www.thenational.academy/year-6/english/information-leaflet-lesson-2-reading-focus-year-6-wk2-2">https://www.thenational.academy/year-6/english/information-leaflet-lesson-2-reading-focus-year-6-wk2-2</a></p>	<p><b>Science – salt crystals</b></p> <p>Today, I would like you to complete a fun science experiment on salt crystals. We looked at salt and how it can help to dry out foodstuffs during our work on mummifying tomatoes but I would now like you to look at how it crystallises when a salt solution evaporates.</p>	<p><b>Reading</b> (everyday 15mins) <b>Verbal tables</b> (everyday 10 minutes) <b>Spellings</b> (either print out the sheet</p>

<p>White Rose Maths – Summer Term Week 7 – Lesson 1 – Find a rule – two step</p> <p><a href="https://whiterosemaths.com/homelearning/year-6/">https://whiterosemaths.com/homelearning/year-6/</a></p> <p>Watch the video. Then complete the questions on the worksheet attached to this document under the spellings. There is also an answer sheet to mark your work when completed.</p>	<p>Complete the introductory quiz.</p> <ol style="list-style-type: none"> <li>1. Watch the video and complete the questions with the teacher.</li> <li>2. Pause the video, close the video and move onto the independent task in your book.</li> <li>3. Click on the 'Resume video' box at the top of the page and mark your work.</li> </ol> <p>Stop the video and do not complete the spellings section as I have set your spellings below.</p>	 <p>You will need a few items:</p> <ul style="list-style-type: none"> <li>• A jar or clear beaker</li> <li>• Some warm water</li> <li>• Salt</li> <li>• A spoon</li> <li>• Some string</li> </ul> <p>Firstly, add some warm water to your jar or beaker. Then add some salt and stir the water until the salt dissolves. Repeat this process until you find the salt stops dissolving and starts to sit and stay at the bottom of the jar. Now you need to tie your piece of string to your spoon or a pencil and place the spoon or pencil across the top of the jar so that the string is in the water.</p> <p>Put the jar into on a warm windowsill and wait for the water to evaporate. This will leave a salt crystal attached to your string. If you would like to add an extra challenge, you could add some food colouring to your solution and see if the salt crystals are coloured. On the other hand, you could see if the process works with replacing salt with sugar.</p>	<p>or attached, or create your own) <b>Contact</b> a friend or relative for a good chat</p> 
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**Day 5 – This is now a choice day depending on how you have got on this week. You can either have a go at Day 5 below OR you can spend some quality time finishing learning from Days 1-4 OR you can do both. You can also ‘dip’ into Day 5 too. I don’t mind as long as you are continuing your learning as best you can.**

<p><b>Day 5</b></p> <p>Open the following document on the school website: <b>Flashback 4 week beginning 8.6.20</b> Complete Day 5 questions. Mark with answers on the next page.</p> <p>White Rose Maths – Summer Term Week 7 – Lesson 2 – Forming expressions</p> <p><a href="https://whiterosemaths.com/homelearning/year-6/">https://whiterosemaths.com/homelearning/year-6/</a></p> <p>Watch the video. Then complete the questions on the worksheet attached to this document under the spellings. There is also an answer sheet to mark your work when completed.</p>	<p>We are using the Oak National Academy resources again and today you will be completing a session looking at key features of an information text.</p> <p>Firstly, click on the link below: <a href="https://www.thenational.academy/year-6/english/information-leaflet-lesson-3-identifying-features-year-6-wk2-3">https://www.thenational.academy/year-6/english/information-leaflet-lesson-3-identifying-features-year-6-wk2-3</a></p> <ol style="list-style-type: none"> <li>1. Complete the introductory quiz.</li> <li>2. Watch the video and complete the work with the teacher (ignore the part about spellings as I have set your spellings below).</li> <li>3. Pause the video, close the video and move onto the independent task in your book.</li> <li>4. Click on the 'Resume video' box at the top of the page and mark your work.</li> </ol> <p>Stop the video and do not complete the spellings section as I have set your spellings below.</p>	 <p><b>Spelling test</b> – ask someone to test you on your spellings from this week.</p> <p><b>Use this time to complete all of your work.</b></p>	<p><b>Reading</b> (everyday 15mins) <b>Verbal tables</b> (everyday 10 minutes) <b>Spellings</b> (either print out the sheet or attached, or create your own) <b>Contact</b> a friend or relative for a good chat</p>
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Now please choose five of the words in your list and write them in a sentence.

1. \_\_\_\_\_

2. \_\_\_\_\_

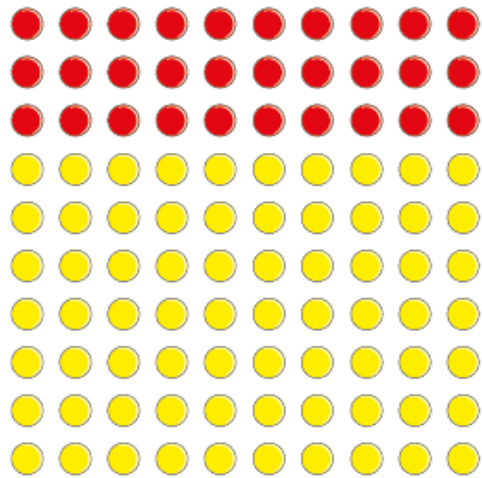
3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

# Fractions to percentages

1



a) What fraction of the array of counters is red?

b) What fraction of the array of counters is yellow?

c) What percentage of the array of counters is red?

 %

d) What percentage of the array of counters is yellow?

 %

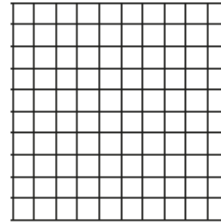
e) What do you notice about the two percentages?



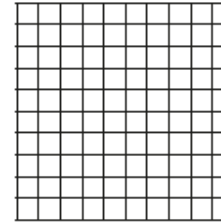
2

a) Shade the hundred squares to represent the fractions.

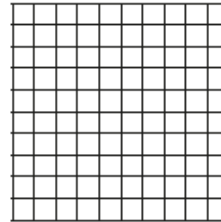
$$\frac{40}{100}$$



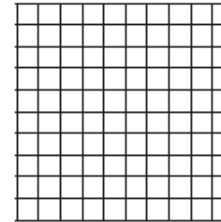
$$\frac{65}{100}$$



$$\frac{1}{2}$$



$$\frac{7}{10}$$



b) Write the fractions as percentages.

$$\frac{40}{100} = \boxed{\phantom{00}} \%$$

$$\frac{65}{100} = \boxed{\phantom{00}} \%$$

$$\frac{1}{2} = \boxed{\phantom{00}} \%$$

$$\frac{7}{10} = \boxed{\phantom{00}} \%$$

c) Compare your shaded grids with a partner's. What is the same and what is different?



3 Fill in the missing numbers.

a)  $\frac{9}{10} = \frac{\square}{100} = \square\%$

c)  $\frac{9}{50} = \frac{\square}{100} = \square\%$

b)  $\frac{9}{20} = \frac{\square}{100} = \square\%$

d)  $\frac{9}{25} = \frac{\square}{100} = \square\%$

4



$\frac{1}{10}$  is 10%, so  $\frac{1}{20}$  must be 20%.

Explain the mistake that Ron has made.

What is the correct answer?

$\frac{1}{20} = \square\%$

5 Convert the fractions to percentages.

a)  $\frac{1}{4} = \square$

b)  $\frac{1}{5} = \square$

$\frac{1}{2} = \square$

$\frac{2}{5} = \square$

$\frac{3}{4} = \square$

$\frac{4}{5} = \square$

c)  $\frac{16}{20} = \square$

d)  $\frac{45}{50} = \square$

$\frac{8}{20} = \square$

$\frac{9}{10} = \square$

$\frac{4}{20} = \square$

$\frac{18}{20} = \square$

e) What do you notice?

6

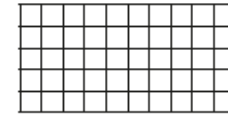
a) Shade the grid in the given proportions.

•  $\frac{3}{5}$  green

• 14% red

•  $\frac{4}{20}$  blue

• the rest yellow



b) What percentage of the grid is yellow?

$\square\%$

7

a) Use each digit card once to make the statements correct.



$\frac{\square}{\square} > \square\%$

$75\% = \frac{\square}{4}$

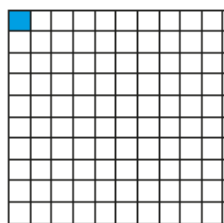
$\frac{3}{\square} < 65\%$

b) Are there any other solutions?

# Equivalent FDP



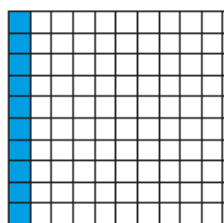
1 What fraction, decimal and percentage of each grid is shaded blue?



fraction =

decimal =

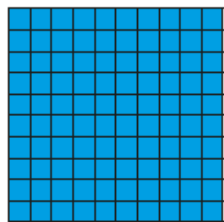
percentage =



fraction =

decimal =

percentage =



fraction =

decimal =

percentage =

2 Match the equivalent fractions, decimals and percentages.

$\frac{15}{100}$

0.05

5%

$\frac{1}{20}$

0.5

15%

$\frac{1}{5}$

0.2

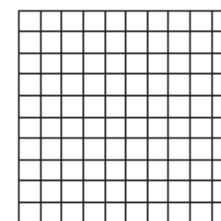
50%

$\frac{1}{2}$

0.15

20%

3 a) Shade the grid in the given proportions.



- $\frac{3}{10}$  green
- 0.03 red
- 13% blue
- 0.3 yellow

b) What proportion of the grid is unshaded?

Write your answer as a fraction, decimal and percentage.

fraction =  decimal =  percentage =



4 Complete the table.

Fraction	Decimal	Percentage
	0.21	
		12%
$\frac{2}{10}$		
	0.4	
	0.44	
		4%
$\frac{3}{4}$		
	0.99	

5 Amir was asked to complete the statement using  $<$ ,  $>$  or  $=$ .

14%  $>$  0.4



14 is greater than 4

What mistake has Amir made?

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6 Match the decimal cards to the people.



My decimal is  $\frac{4}{10}$  less than 100%.

0.65



My decimal cannot be simplified when it is written as a fraction.

0.57



My decimal is 10% less than  $\frac{3}{4}$

0.61



My decimal is greater than 60%.

0.6

7 Use the digit cards to write a decimal greater than  $\frac{1}{5}$  but less than 40%.

You may not use a card more than once in each number.



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How many other answers can you find?

## Find a rule – two step

- 1 Use the function machine to complete the table.



Input	1	2	3	5	10	50
Output						

- 2 Here is the same function machine with the steps in the reverse order.



Teddy

The outputs will be the same.



Jack

The outputs will be different.

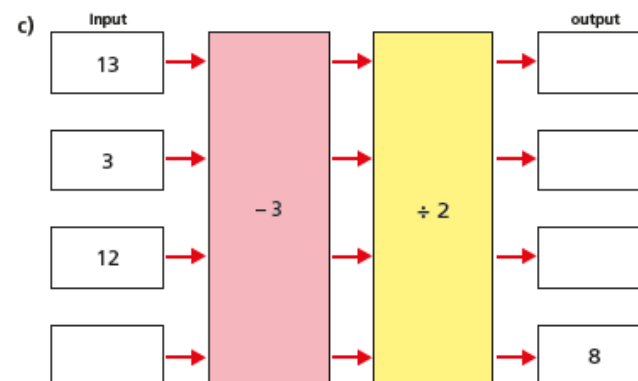
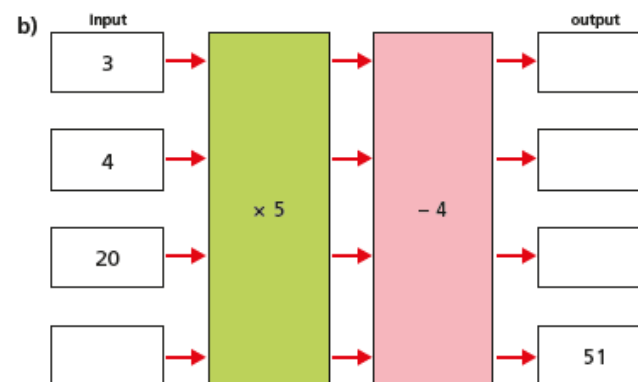
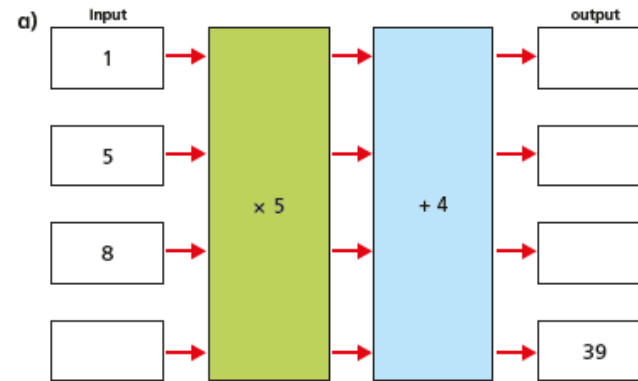
Explain to a partner who you think is correct.

Use the function machine to complete the table.

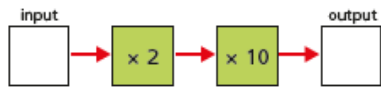
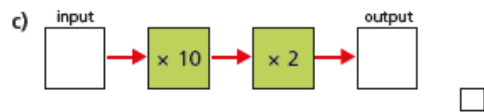
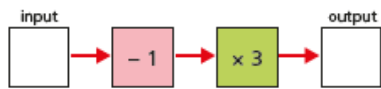
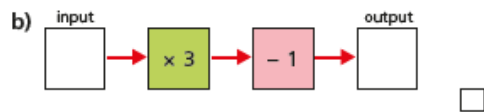
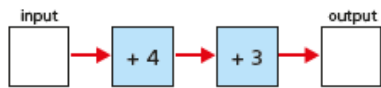
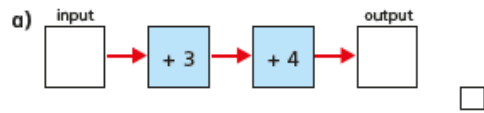
Input	1	2	3	5	10	50
Output						

Who is correct? \_\_\_\_\_

- 3 Work out the missing outputs and inputs.



4 Tick the pairs of function machines that will give the same outputs for a given input.

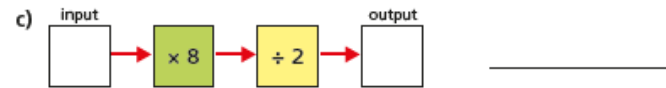


Explain your reasoning to a partner.

5 Here are some 2-step function machines.

For each machine, write a single step that would give the same output.

Check your answers by inputting values.



Can all 2-step function machines be written as a 1-step function machine?

Talk about it with a partner.

6 Here is a function machine.



a) Complete the table.

Input	10	3		
Output			40	280

b) Rosie puts a number into the machine and she gets out the same number.

Work out Rosie's number.

7 Mr Hall and Mrs Rose order some photos online.

a) Mr Hall orders 16 photos.

How much does he pay?

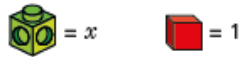



b) Mrs Rose pays £6.05

How many photos did she order?








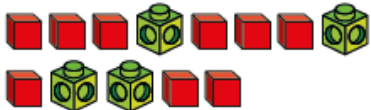
# Forming expressions

- 1 Tommy uses multilink cubes to represent an unknown number and base ten ones to represent 1



Write algebraic expressions to describe the sets of cubes.

The first one has been done for you.

- a)       $2x + 3$
- b)  \_\_\_\_\_
- c)  \_\_\_\_\_
- d)  \_\_\_\_\_
- e)  \_\_\_\_\_
- f)  \_\_\_\_\_
- g)  \_\_\_\_\_
- h)  \_\_\_\_\_



- 2 Use Tommy's method to represent these expressions.

- a)  $x + 2$
- b)  $2x$
- c)  $3x + 1$
- d)  $x + 6$

Compare answers with a partner.

- 3 Use cubes to help you simplify the following expressions.

The first one has been done for you.

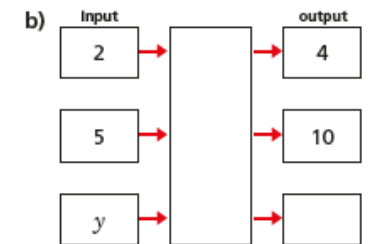
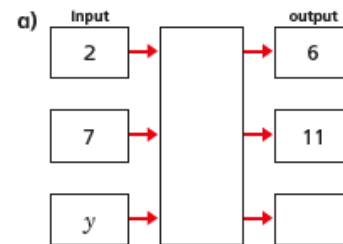
- a)  $2y + 5 + y$   
      $3y + 5$

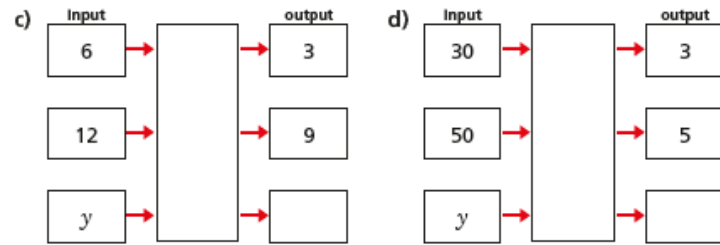
- b)  $3a + 2 + a + a$   
 \_\_\_\_\_

- c)  $6p + 2 - 2p$   
 \_\_\_\_\_

- d)  $m + 4 + 3m - 3$   
 \_\_\_\_\_

- 4 Complete the function machines.

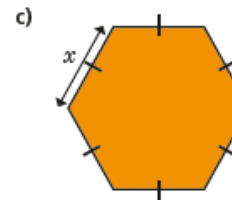
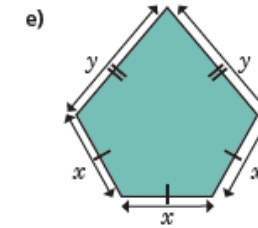
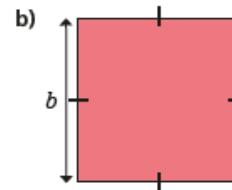
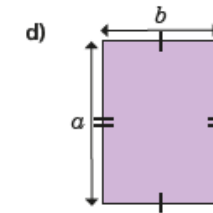
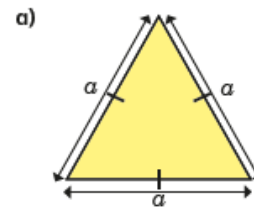




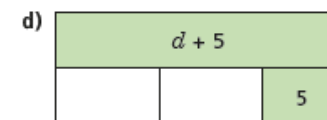
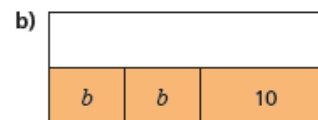
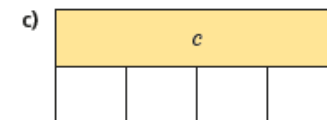
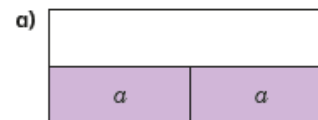
5 Match each statement to the equivalent algebraic expression.  
Write the missing statements.

5 more than $y$	$2y$
$y$ less than 5	$y - 5$
$y$ multiplied by 5	$5 - y$
$y$ divided by 5	$y + 5$
double $y$	$5y$
	$y^2$
	$\frac{y}{5}$

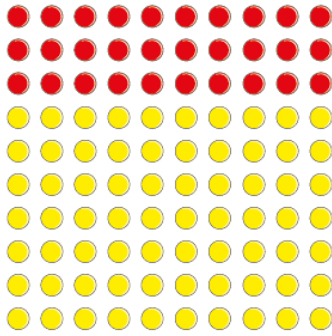
6 Write an algebraic expression to represent the perimeter of each shape.



7 Complete the bar models.



1



- a) What fraction of the array of counters is red?  $\frac{3}{10}$
- b) What fraction of the array of counters is yellow?  $\frac{7}{10}$
- c) What percentage of the array of counters is red? 30%
- d) What percentage of the array of counters is yellow? 70%
- e) What do you notice about the two percentages?



3

Fill in the missing numbers.

- a)  $\frac{9}{10} = \frac{90}{100} = 90\%$       c)  $\frac{9}{50} = \frac{18}{100} = 18\%$
- b)  $\frac{9}{20} = \frac{45}{100} = 45\%$       d)  $\frac{9}{25} = \frac{36}{100} = 36\%$

4



$\frac{1}{10}$  is 10%, so  $\frac{1}{20}$  must be 20%.

Explain the mistake that Ron has made.  
What is the correct answer?

$\frac{1}{20} = 5\%$

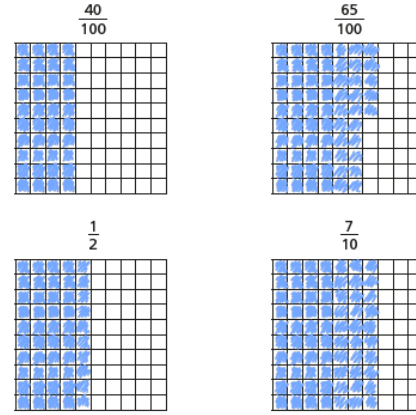
5

Convert the fractions to percentages.

- a)  $\frac{1}{4} = 25\%$       b)  $\frac{1}{5} = 20\%$
- $\frac{1}{2} = 50\%$        $\frac{2}{5} = 40\%$
- $\frac{3}{4} = 75\%$        $\frac{4}{5} = 80\%$

2

a) Shade the hundred squares to represent the fractions.



b) Write the fractions as percentages.

$\frac{40}{100} = 40\%$        $\frac{65}{100} = 65\%$

$\frac{1}{2} = 50\%$        $\frac{7}{10} = 70\%$

c) Compare your shaded grids with a partner's.  
What is the same and what is different?

- c)  $\frac{16}{20} = 80\%$
- $\frac{8}{20} = 40\%$
- $\frac{4}{20} = 20\%$

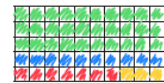
- d)  $\frac{45}{50} = 90\%$
- $\frac{9}{10} = 90\%$
- $\frac{18}{20} = 90\%$

e) What do you notice?

6

a) Shade the grid in the given proportions.

- $\frac{3}{5}$  green
- 14% red
- $\frac{4}{20}$  blue
- the rest yellow

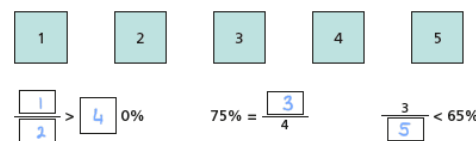


b) What percentage of the grid is yellow?

60%

7

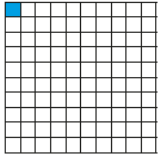
a) Use each digit card once to make the statements correct.



b) Are there any other solutions?

# Equivalent FDP

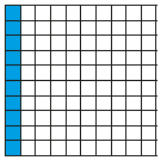
1 What fraction, decimal and percentage of each grid is shaded blue?



fraction =  $\frac{1}{100}$

decimal = 0.01

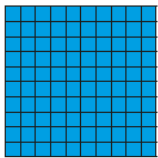
percentage = 1%



fraction =  $\frac{1}{10}$

decimal = 0.1

percentage = 10%



fraction =  $\frac{100}{100}$

decimal = 1

percentage = 100%

4 Complete the table.

Fraction	Decimal	Percentage
$\frac{21}{100}$	0.21	21%
$\frac{3}{25}$	0.12	12%
$\frac{2}{10}$	0.2	20%
$\frac{2}{5}$	0.4	40%
$\frac{11}{25}$	0.44	44%
$\frac{1}{25}$	0.04	4%
$\frac{3}{4}$	0.75	75%
$\frac{99}{100}$	0.99	99%

5 Amir was asked to complete the statement using <, > or =.

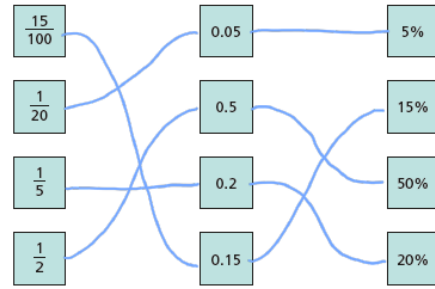
14% > 0.4



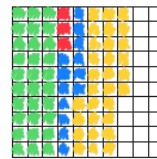
What mistake has Amir made?

He hasn't compared them in the same form.  $0.4 = 40\%$  and  $40\% > 14\%$  so  $14\% < 0.4$

2 Match the equivalent fractions, decimals and percentages.



3 a) Shade the grid in the given proportions.



- $\frac{3}{10}$  green
- 0.03 red
- 13% blue
- 0.3 yellow

b) What proportion of the grid is unshaded?

Write your answer as a fraction, decimal and percentage.

fraction =  $\frac{6}{25}$  decimal = 0.24 percentage = 24%

6 Match the decimal cards to the people.

7 Use the digit cards to write a decimal greater than  $\frac{1}{5}$  but less than 40%.

You may not use a card more than once in each number.

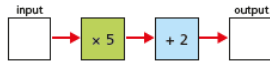


E.g. 0.24

How many other answers can you find?

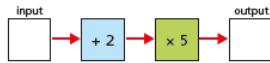
# Find a rule – two step

1 Use the function machine to complete the table.



Input	1	2	3	5	10	50
Output	7	12	17	27	52	252

2 Here is the same function machine with the steps in the reverse order.



The outputs will be the same.



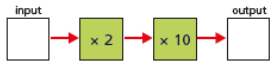
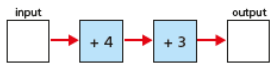
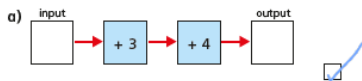
The outputs will be different.

Explain to a partner who you think is correct. Use the function machine to complete the table.

Input	1	2	3	5	10	50
Output	15	20	25	35	60	260

Who is correct? Jack

4 Tick the pairs of function machines that will give the same outputs for a given input.



Explain your reasoning to a partner.

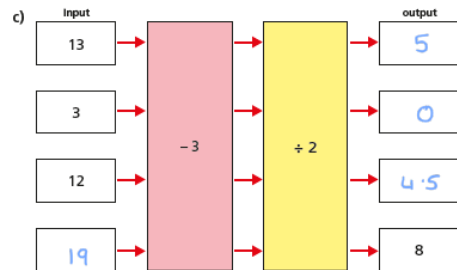
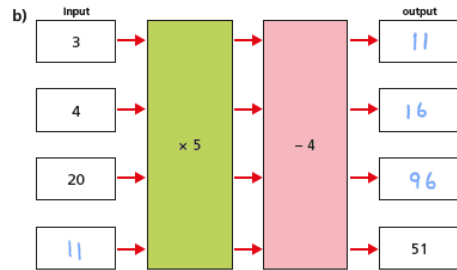
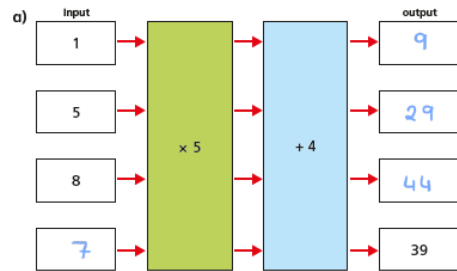
5 Here are some 2-step function machines.

For each machine, write a single step that would give the same output.

Check your answers by inputting values.



3 Work out the missing outputs and inputs.



Can all 2-step function machines be written as a 1-step function machine?

Talk about it with a partner.

6 Here is a function machine.



a) Complete the table.

Input	10	3	13	73
Output	28	0	40	280

b) Rosie puts a number into the machine and she gets out the same number.

Work out Rosie's number.

4

7 Mr Hall and Mrs Rose order some photos online.

a) Mr Hall orders 16 photos.

How much does he pay?



£4.45

b) Mrs Rose pays £6.05

How many photos did she order?

24



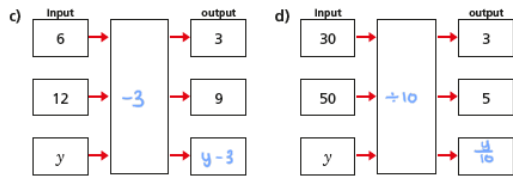
# Forming expressions

- 1 Tommy uses multilink cubes to represent an unknown number and base ten ones to represent 1

=  $x$       = 1

Write algebraic expressions to describe the sets of cubes.  
The first one has been done for you.

- a)  $2x + 3$
- b)  $3x + 5$
- c)  $3x$
- d)  $x + 3$
- e)  $2x + 5$
- f)  $5x + 2$
- g)  $2x + 6$
- h)  $4x + 9$



- 5 Match each statement to the equivalent algebraic expression.  
Write the missing statements.

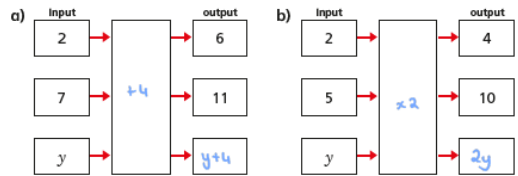
5 more than $y$	$2y$
$y$ less than 5	$y - 5$
$y$ multiplied by 5	$5 - y$
$y$ divided by 5	$y + 5$
double $y$	$5y$
5 less than $y$	$y^2$
$y$ multiplied by $y$	$\frac{y}{5}$

- 2 Use Tommy's method to represent these expressions.
- a)  $x + 2$       c)  $3x + 1$
  - b)  $2x$       d)  $x + 6$
- Compare answers with a partner.

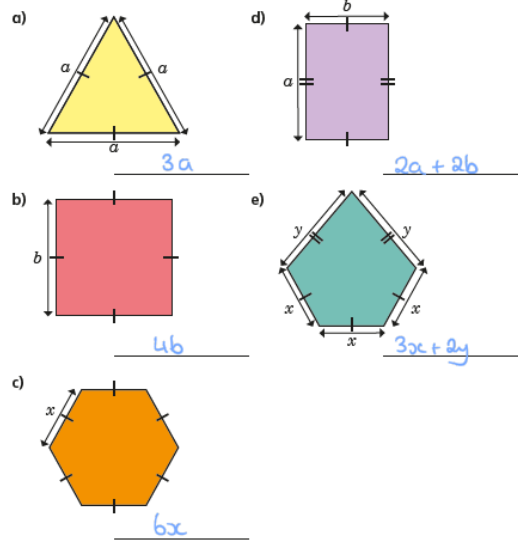
- 3 Use cubes to help you simplify the following expressions.  
The first one has been done for you.

- a)  $2y + 5 + y$   $3y + 5$
- b)  $3a + 2 + a + a$   $5a + 2$
- c)  $6p + 2 - 2p$   $4p + 2$
- d)  $m + 4 + 3m - 3$   $4m + 1$

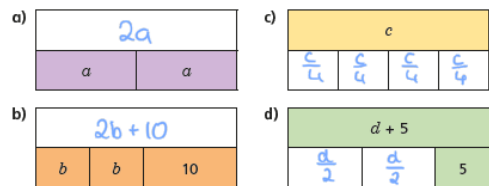
- 4 Complete the function machines.



- 6 Write an algebraic expression to represent the perimeter of each shape.



- 7 Complete the bar models.



## Titanium writing

### Day 1

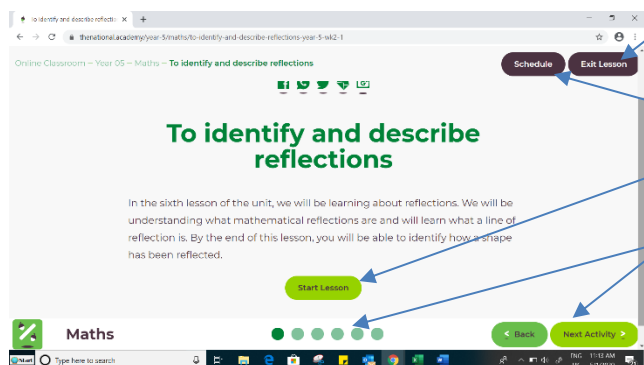
Ashamed and scared, I held my head in my hands. Lifting my head slowly, I looked at the devastation all around me. Paper was strewn across the floor, lockers ripped open and torn from the walls and doors behind me were ripped from their hinges and crumpled upon the ground. Try as I might, I could not remember what had happened, but I knew it was me, it must have been. Slowly, I lifted my aching body from the ground. It was cold in the corridor: my breath was ice. I pulled my coat tightly around my shoulders and stepped forward. My legs were shaking as I began to make my way down the deserted hallway.

### Day 2

I grabbed the bike and hopped on. Behind me, I could hear Mrs Smith shouting, "There he is quick!" I didn't hang around to hear the response, I was gone. There wasn't time to think, I just had to get out of there. I pedaled quickly air whistling passed me. Adrenalin rushed through my body pushing me on towards home. A couple of minutes later, I slowed down and looked behind there was no one in sight. The wind stung my eyes as I rubbed my face with my hands, I still couldn't believe what had happened. A few hundred metres more and I was home. I threw the bike onto the front lawn and raced through the front door.

# OAK NATIONAL ACADEMY HELPSHEET

## ALL LESSONS ARE IN THE SAME FORMAT



Exit lesson completely.

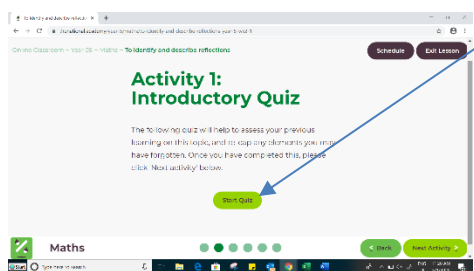
Return to the daily schedule

Begin the lesson

Navigate between activities by clicking green circles or using the 'back' and 'Next Activity' buttons

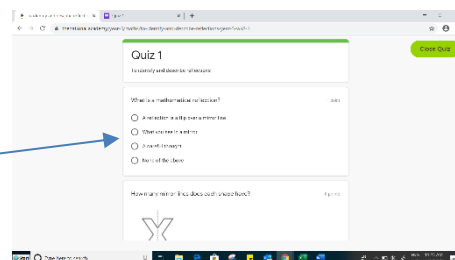
Click 'Start Lesson'

This will take you to a new page that will look like this:

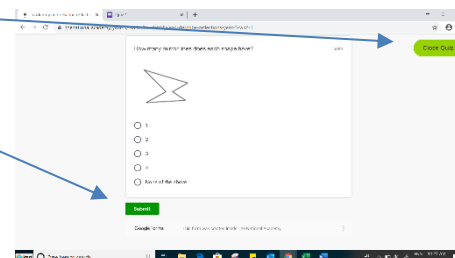


Click start quiz

The quizzes are multiple choice questions – just select your answer by clicking a circle



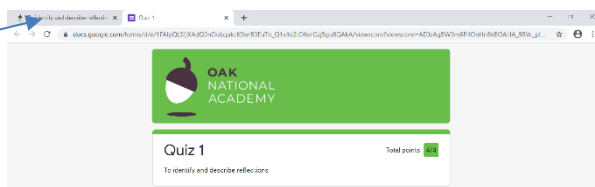
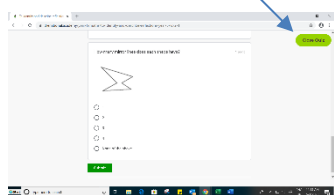
You can leave the quiz at any time by clicking here:



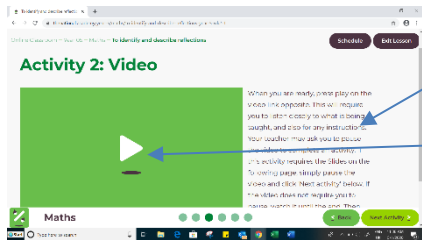
You can submit your quiz answers for marking by clicking here:

PLEASE NOTE: when you submit your answers a NEW window will open with your feedback.

Click on the previous tab to return to the lesson and then click on 'Close Quiz'.



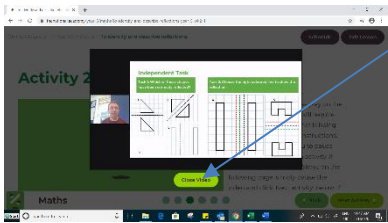
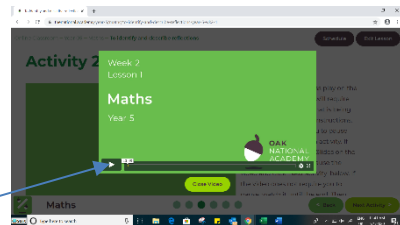
Click on the next green circle or the 'Next Activity' button to take you to 'Activity 2' the video lesson.



Read the information first.

Click to play

Click here to play and pause

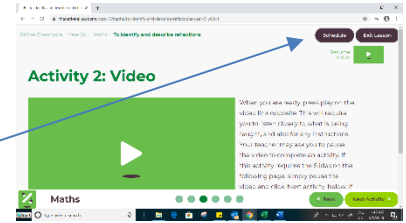


You can close the video at any time.

Then resume at the place where you closed (may need to scroll up a bit).

After you have watched and learnt from

the video, close the video and click the next green circle or the 'Next Activity' button.



This will take you to the 'Main Activity' page where you can read the information:

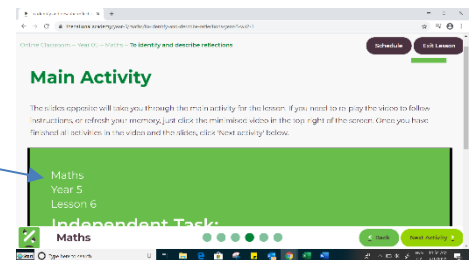
The main activity is a slide show embedded in the page. Scroll down to see the slide show control buttons.

**Move between slides.**      **Enter/Exit Fullscreen**



You can also click the slide to move forward.

Here will be your independent task(s) to try and do in your book. When you have done them. Resume the video (using the Resume Video button top left of page) for the answers and feedback.



Click on the next green circle or 'Next Activity' button to take you to a finishing quiz (complete in the same way as the starter quiz). The final green circle is the 'Lesson Complete' page.

