

Home Learning **MATHS** week 10

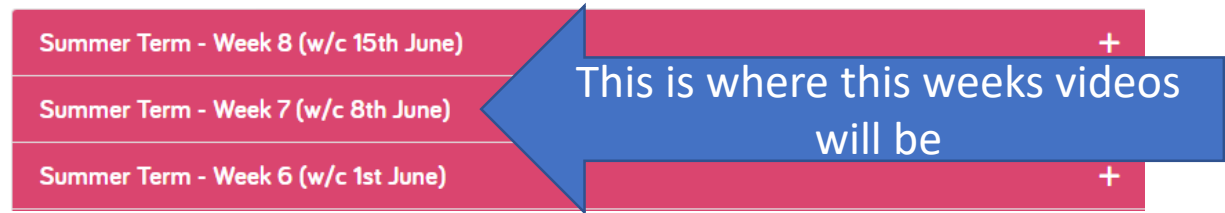
Monday - Week 7 lesson 1

Tuesday - Week 7 lesson 2

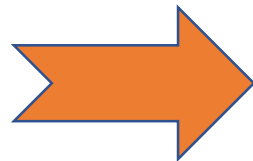
Wednesday - Week 7 lesson 3

Thursday - Week 7 lesson 4

Friday - Week 7 Friday Maths Challenges ([Click here for challenges](#))



You will need to use this link to access the videos



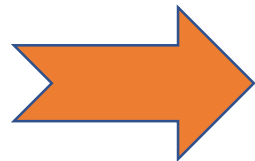
<https://whiterosemaths.com/homelearning/year-6/>

Home Learning **MATHS** week 10

This week, you will not be able to access the worksheets online.

I have included them as a PDF file and are accessible through the school website.


You will need to use this link to access the videos



<https://whiterosemaths.com/homelearning/year-6/>

Friday Challenges

Click on the picture below to take you to the BBC website for this week's Friday challenges. Watch the video and then work through the challenges..



**Calculating with
time in football**

The Maths

Maths resource

Upper KS2: Ages 9-11

< >

The image is a promotional graphic for a maths resource. It features a bright yellow background with a dark purple abstract shape at the bottom. The text is centered and includes the Premier League Primary Stars logo in the top right corner. Navigation arrows are located at the bottom left and right.

Answers - Monday

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.

Teddy



The outputs will be different.

Jack

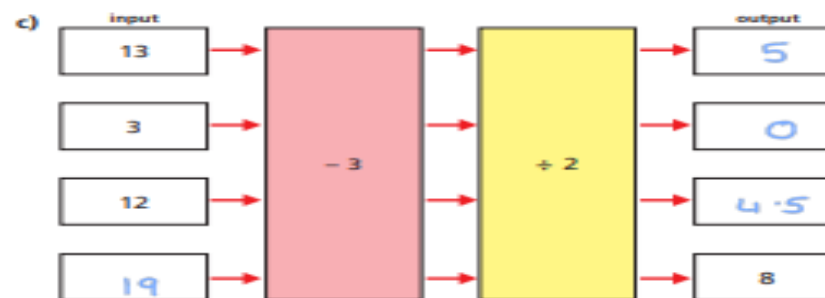
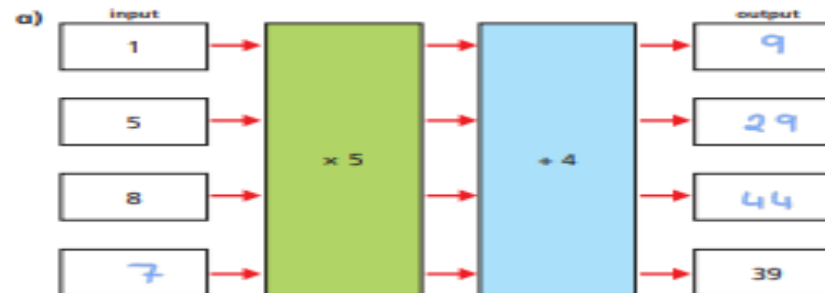
Explain to a partner who you think is correct.

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

- 3 Work out the missing outputs and inputs.



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.



Teddy

The outputs will be the same.



Jack

The outputs will be different.

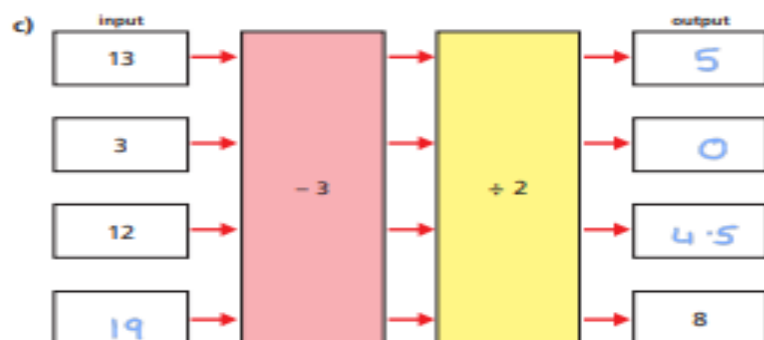
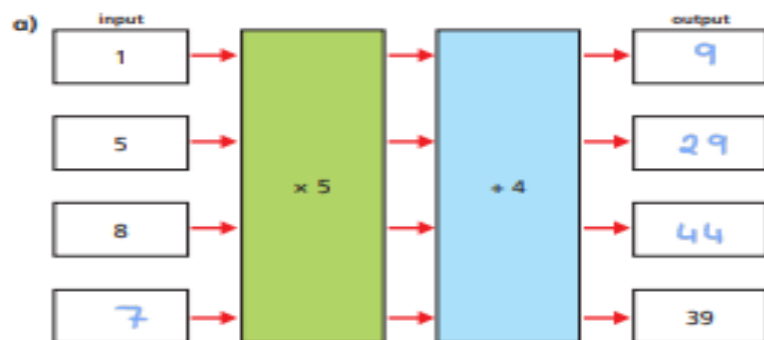
Explain to a partner who you think is correct.

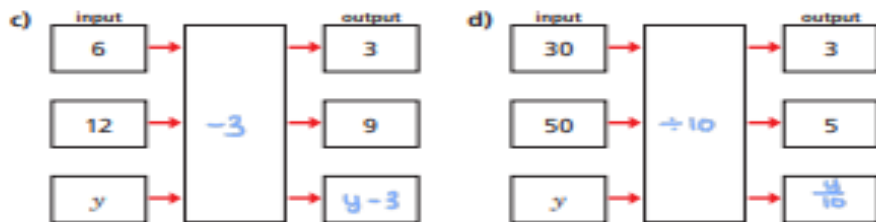
Use the function machine to complete the table.

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

Who is correct? Jack

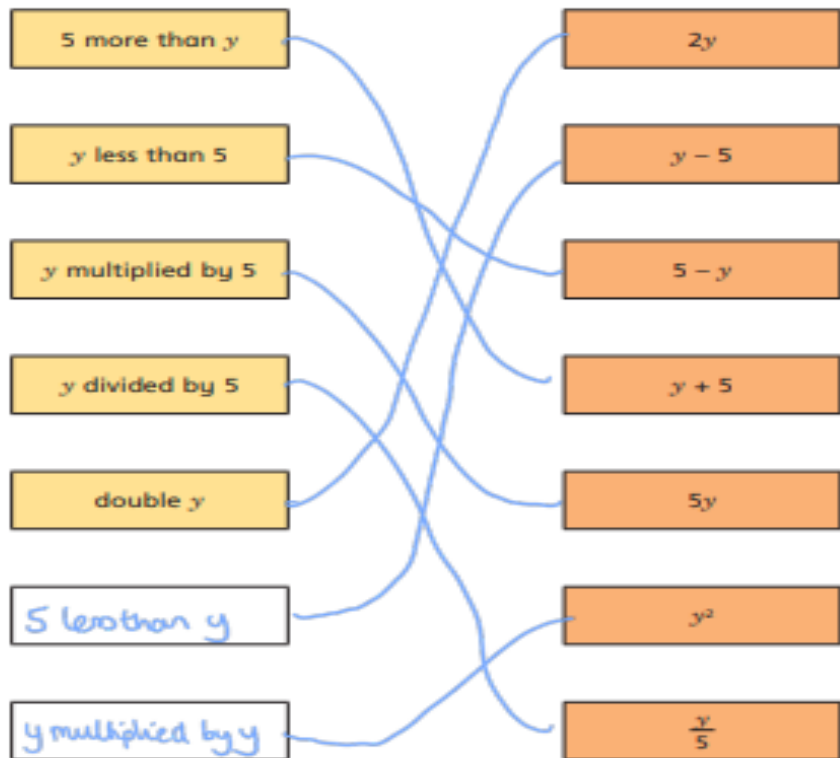
- 3 Work out the missing outputs and inputs.



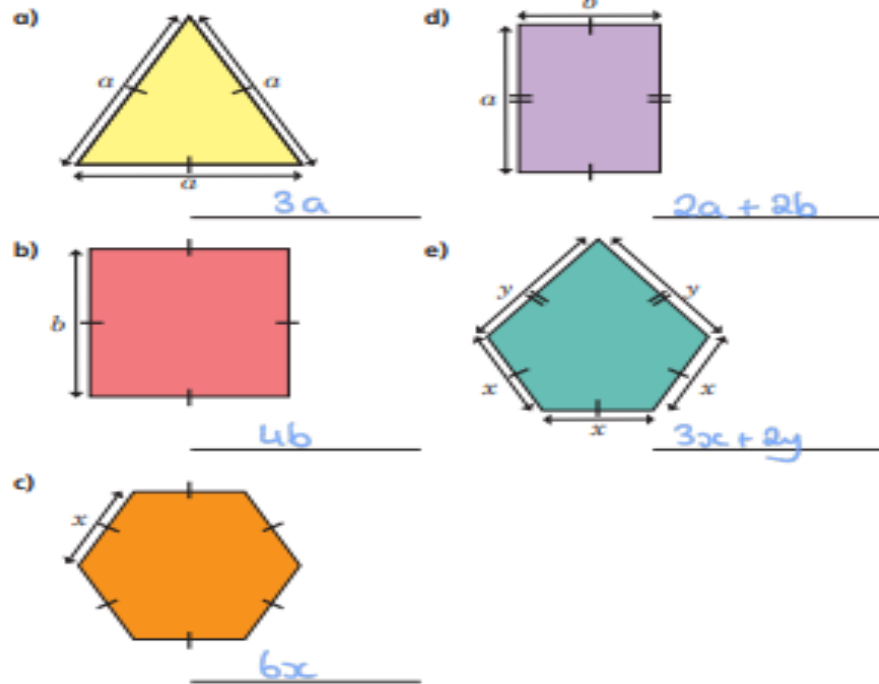


5 Match each statement to the equivalent algebraic expression.

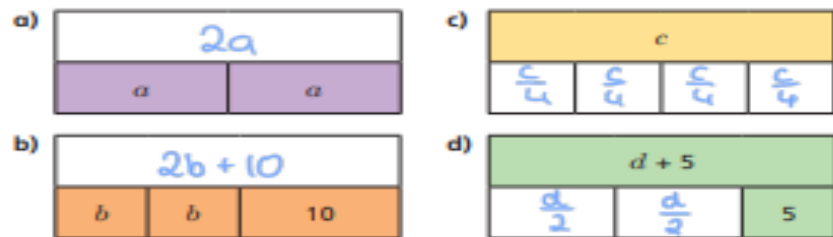
Write the missing statements.



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



7 Complete the bar models.



Wednesday

Substitution

White
Rose
Maths

1

$$\text{Pentagon} = 4 \quad \text{Circle} = 5$$

Use the given facts to work out the calculations.

a) $\text{Pentagon} + \text{Pentagon} + \text{Circle}$

13

b) $\text{Pentagon} + \text{Pentagon} - \text{Circle}$

3

c) $\text{Circle} + \text{Circle} + \text{Circle} + \text{Pentagon} + \text{Pentagon}$

23

2

$$\text{Triangle} = 12 \quad \text{Square} = 5$$

Use the given facts to work out the calculations.

a) $\text{Triangle} - \text{Square}$

7

b) $\text{Triangle} \times \text{Square}$

60

c) Create your own calculation that will be equal to 22

e.g. $\text{Triangle} + \text{Square} + \text{Square}$

3

If $x = 5$, write the values of the expressions in the corresponding grid. The first one has been done for you.

$3x$	x^2	$2x - 5$
$4x + 2$	$\frac{x}{2}$	$2(x + 1)$
$7x$	$x + 9$	$x - 7$

15	25	5
22	2.5	12
35	14	-2

4

If $a = 10$ and $b = 6$, work out the values of the expressions.

a) $a + b = 16$

d) $2a + b = 26$

b) $a - b = 4$

e) $3a - 17 = 13$

c) $2a = 20$

f) $2(a - b) = 8$

5

If $m = \frac{4}{5}$ and $k = 0.1$, work out the value of $m + 2k$

1



6



Mo

It does not matter what p and q are, $p + q$ and $q + p$ will always give the same answer.

Do you agree with Mo? Yes

Explain your answer.

Addition is commutative.

7

$$m = 7 \quad n = 5$$

Write $>$, $<$ or $=$ to compare the expressions.

a) $2m$ $>$ 10

b) $n - 1$ $<$ 5

c) $2n + m$ $<$ $2m + n$

d) $7n$ $=$ $5m$

8

$$a = 10$$

Write the expressions in order, starting with the smallest value.

$$5a$$

$$a + 5$$

$$\frac{a}{5}$$

$$a^2$$

$$\frac{a}{5}$$

$$a + 5$$

$$5a$$

$$a^2$$

9

$$a = 15$$

Write three different algebraic expressions that give a value of 40
e.g.

$$2a + 10$$

$$3a - 5$$

$$\frac{8a}{3}$$

10

Complete the table.

x	$5x$	$5x - 1$
2	10	9
10	50	49
12	60	59
5	25	24
7	35	34
20	100	99

Thursday

Solve simple one-step equations

White
Rose
Maths

- 1 Write an equation for each part-whole model.
Work out the value of the multilink cube in each equation.

a)



$3x = 6$

$\text{cube} = 2$

b)



$x + 4 = 18$

$\text{cube} = 14$

- 2 There are some counters under the cup.



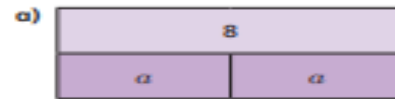
There are 10 counters in total.

- a) If c is the number of counters under the cup, explain why $c + 6 = 10$
- b) Work out the value of c .
- c) How many counters are under the cup?

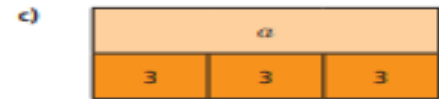
$c = 4$

4

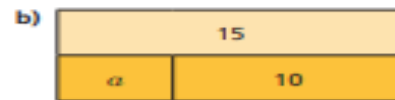
- 3 Write algebraic equations to represent the bar models.
Find the value of a in each one.



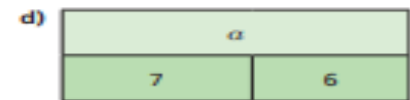
$a = 4$



$a = 9$



$a = 5$



$a = 13$

- 4 Nijah is solving the equation $x - 8 = 20$

$x - 8 = 20$
 $x = 20 - 8$
 $x = 12$

What mistake has Nijah made?

She should have added 8 to 20
 $x = 28$

5 Solve the equations.

a) $x + 7 = 20$

$x = 13$

b) $10y = 80$

$y = 8$

c) $4m = 22$

$m = 5.5$

d) $g - 3 = 15$

$g = 18$

e) $32 = t - 5$

$t = 37$

f) $\frac{u}{6} = 3$

$u = 18$

6 Filip thinks of a number.

He subtracts 5 from his number.

He ends up with 10

Write an algebraic equation to represent Filip's problem.

$x - 5 = 10$

Solve the equation to work out his number.

15

7 Dexter builds a tower.

Each block is $2a$ high.

He uses 7 blocks.



The total height of his tower is 42 cm.

Write an equation to represent the height of Dexter's tower and find the value of a .

$14a = 42$

$a = 3$ cm

8 Work out the value of each shape.

Write the equations that you solved to find the value of each shape.

★	♥	★	♥	
★	▲	★	★	
♥	♥	♥	♥	= 40
▲	★	♥	▲	= 20
				 32

♥ = 10

★ = 6

▲ = 2

Work out the missing total of each row and column.

Compare answers with a partner.

