

Thursday 14th May

Dear Year 6,

We hope you and your families are keeping well and have had a good week.

Here are the activities for this week for you to follow and complete.

Try to read for at least 20 minutes a day and take Accelerated Reader quizzes from home by using this link [Howley Grange Renaissance at home](#) and logging on as usual using your username and password. To check that the book you are reading has a quiz, you can check it using on [Accelerated Reader Bookfinder](#). It's okay to read books which haven't got a quiz - just keep a record of what you have read.

This week would have been SATs week so there are some optional **fun** SAT papers to do at a time that's best for you. We've put them as a separate home-learning pack. We hope that you'll have a giggle when you complete and mark them at home!

As always, remember to take time to relax, exercise and be kind to yourselves and each other.

Take care and keep smiling,

Mrs Graham and Mrs North

English Activity 4a - Writing your portal story

CONTINUE WRITING YOUR STORY FROM YESTERDAY

You now have all of the tools required to write your own portal story. You may like to write about a more traditional portal that leads you to a magical world, or you may prefer to draw upon your personal experiences, as we have explored throughout this unit.

To recap on all the key points we've been learning:

- a. **Describe the portal in detail.** You may want to show the portal through the eyes of the main character.
- b. **Think about what lies on the other side of the door.** Allow yourself the opportunity to write about what interests you and what is important to you.
- c. **Great writers steal ideas ('magpie') from other great writers.** Reflect upon the portal stories that you have loved reading and consider what made these so engaging. Try to bring in some of these skills and techniques into your own work.
- d. **Enjoy it.** Writing is all about sharing a passion for words, stories and the world of possibility. If you love the story you are writing – so too will your reader.

★ **Now write your portal story, drawing on all that you have learned. Don't forget to share or publish your work – great writing deserves an audience!**



Maths Activity 4a - ten in ten 😊

1) $39 + 673 =$

2) $9/11 - 4/11 =$

3) $7064 - 502 =$

4) $56.38 + 24.7 =$

5) $\quad - 28 = 294$

6) 5400 divided by 9 =

7) 60 divided by 15 =

8) $5/7 + 3/21 =$

9) $\frac{3}{4}$ of 1000 =

10) $785 \times 23 =$

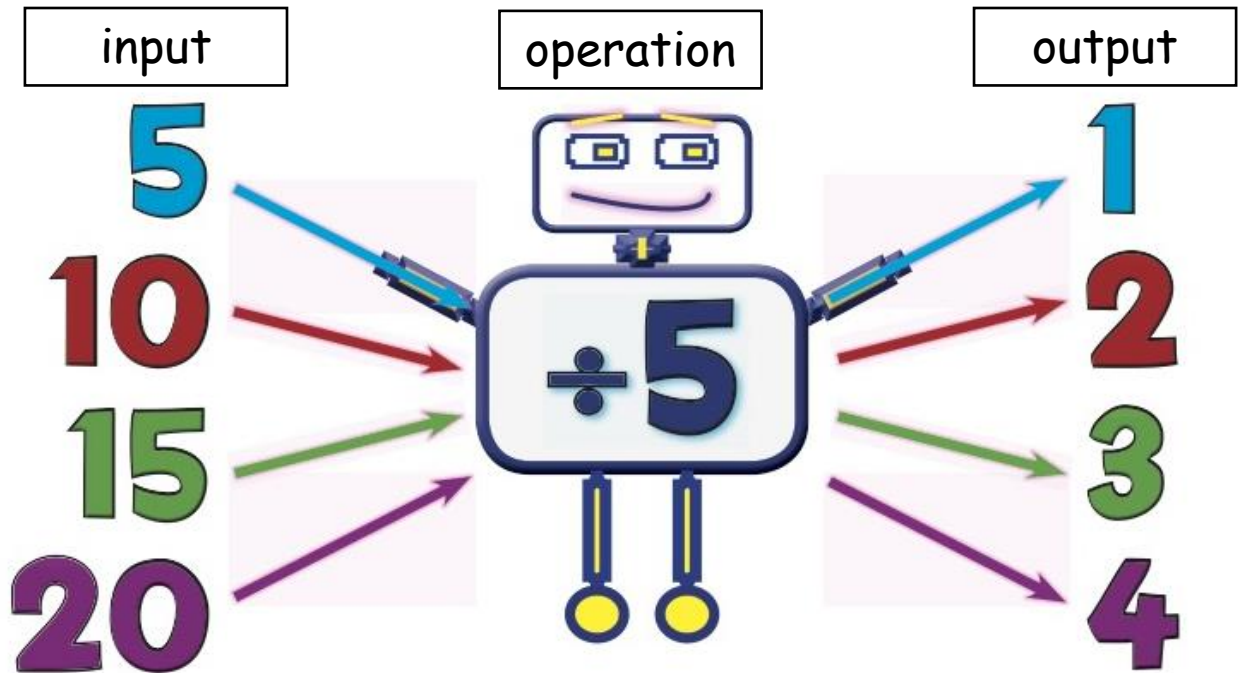
You know the rule!

Ten minutes to answer ten questions 😊

Maths Activity 4b - Function machines

We have included Learning Reminders that will help you with answering today's questions.

Learning Reminder

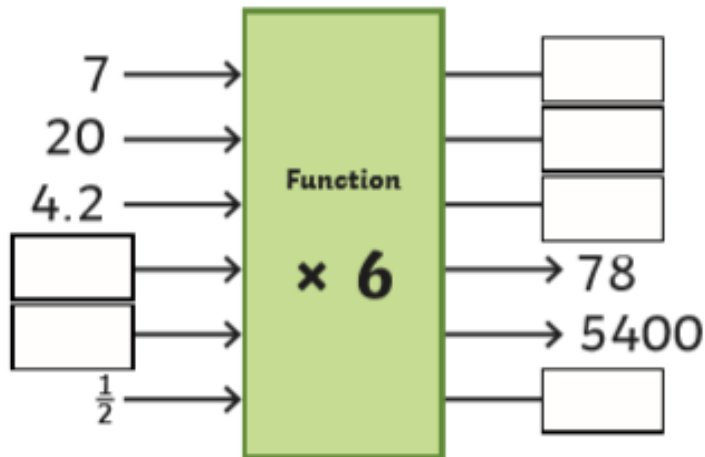


A Function Machine is a diagram that represents a function. It takes an **input**, applies a rule such as a set of **operations** and delivers the answer as an **output**. Your task is either to determine the **input**, the **output** or whatever **operations** take place inside the machine.

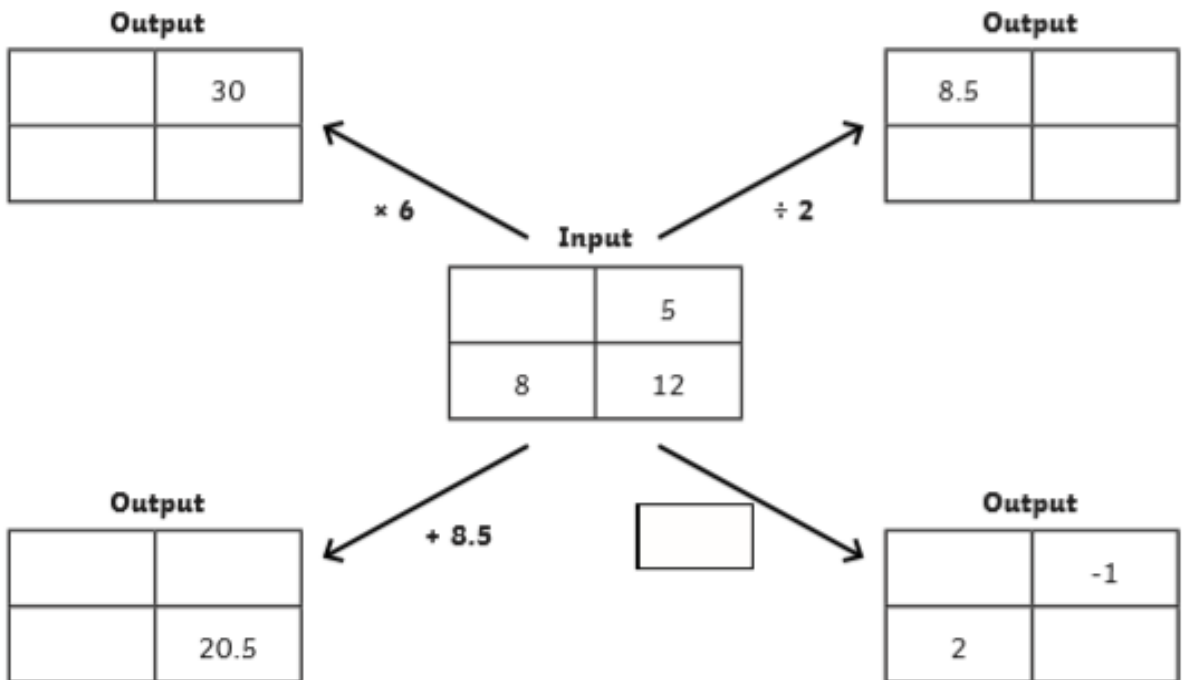
Some function machines have one operation (or rule), some may have two!

Maths Activity 4b **

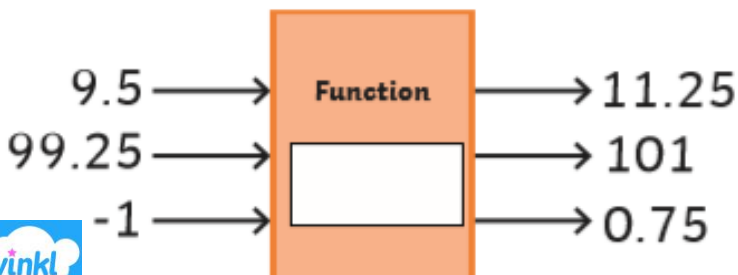
1) This is a one-step function machine. Give the missing inputs and outputs.



2) This one-step function machine has four different outputs. Find the missing outputs, inputs and function.



3) Give the missing function for this one-step machine.



Maths Activity 4b ** continued

Each of these function machines has two steps. Give the missing inputs and outputs for each machine.

1)

Input

12

2000

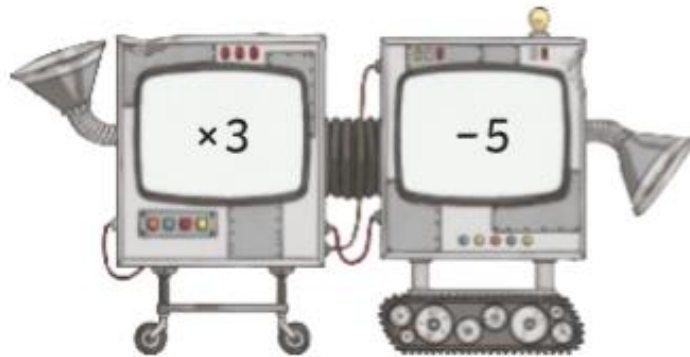
7.2

a)

b)

$2\frac{1}{4}$

Function



Function

Output

c)

d)

e)

7

199

f)

2)

Input

20

72

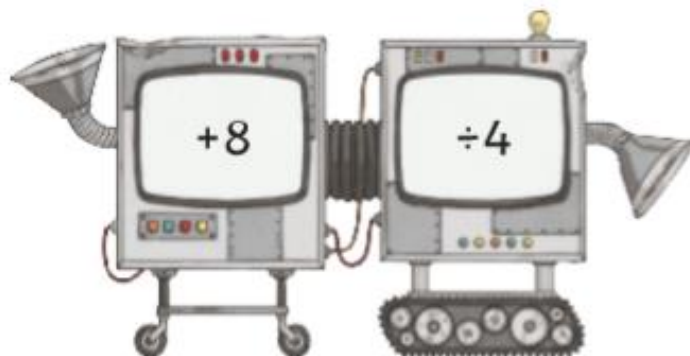
132

a)

b)

0.8

Function



Function

Output

c)

d)

e)

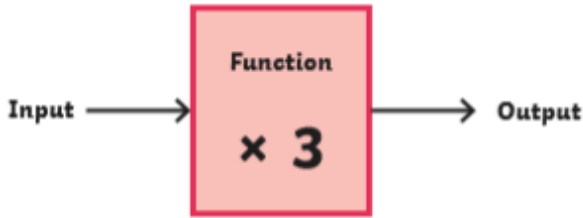
6

16

f)

Maths Activity 4b ***

1) Ava and Ben both have numbers below 100. Look at the statements to find each child's number.



Ava's input number:

- is a multiple of 3;
- is a cube number;
- has a digit sum of 9.

Ava's input is _____ and the output is _____.

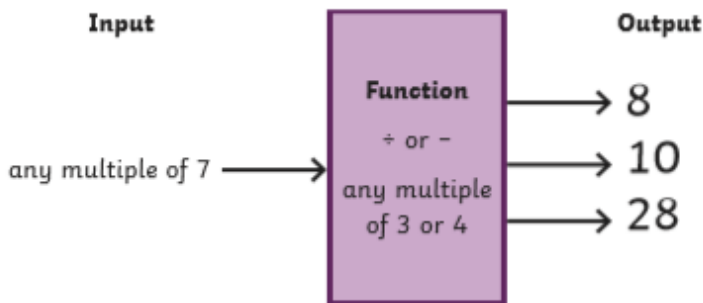
Ben's output number:

- has factors of 4 and 6;
- is a square number;
- has a digit sum of 9.

Ben's input is _____ and the output is _____.



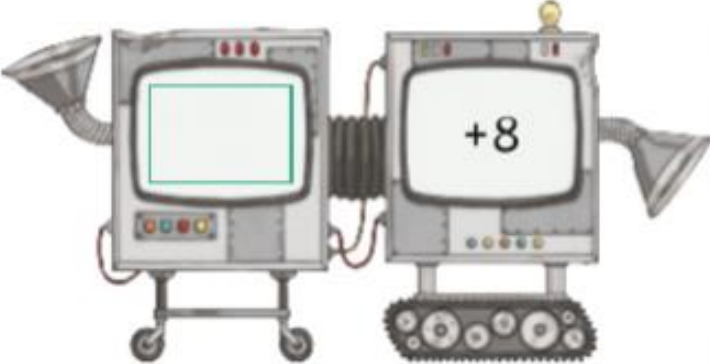
2) The function machine has put out three numbers. Following the rules of the function machine, find four different ways to make each output.



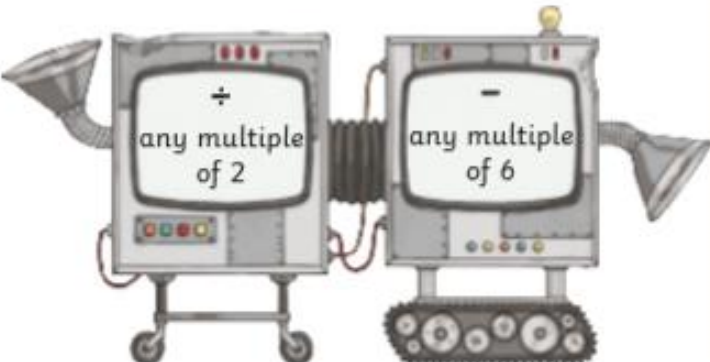
$168 \div 21 = 8$	$\quad = 10$	$\quad = 28$
$\quad = 8$	$\quad = 10$	$\quad = 28$
$\quad = 8$	$\quad = 10$	$\quad = 28$
$\quad = 8$	$\quad = 10$	$\quad = 28$

Maths Activity 4b *** continued

1) Give the missing function and missing inputs for this two-step function machine.

Input	Function	Function	Output
12			11
20			13
a)			14
b)			88
c)			9.2
d)			17.75

2) a) Give an input number, two functions and an output that follow the rules set by the function machine.

Input	Function	Function	Output
Any whole number up to 200			4 16 24 Make each number in four different ways.

For example:

$56 \div 2 - 24 = 4$	= 16	= 24
= 4	= 16	= 24
= 4	= 16	= 24
= 4	= 16	= 24

b) Now use the function machine to make two output numbers of your choice that are >100 . Make each number in four different ways. Are there any numbers that can't be made?

Maths Activity 4c - Challenge

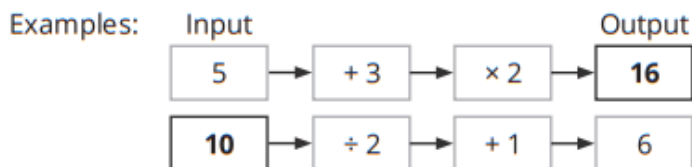
Calculate the input or output of each number machine then locate each answer in the grid.

To find the answers, you must follow these rules:

1. Read from left to right, e.g. To locate 34, circle the 3 and 4.
2. Read down, e.g. To locate 13, circle the 1 and 3.
3. Answers must be in their own 3×3 grid. You cannot go over the boundary lines.
4. Answers < 10 will have a zero in front of them so $09 = 9$



0	1	2	3	4		6	4	8
5		3	9	2	7	1	0	7
6	7	8	1	8	4	3	2	
1	4	4	8	6	3	8	2	6
5		7	1		6	5		9
5	0	3	9	9	5	2	4	6
	0	9	7	5	9	2	0	6
5	8	0	7		8	9		2
7	9	4	6	6	8	3	7	1



In the second example, you should complete the inverse function.

$$6 - 1 = 5$$

$$5 \times 2 = 10$$

Calculate the **output** in the following questions:

Calculate the **input** in the following questions:

1. Input: 9 → ×11 → Output:
2. Input: 18 → +14 → Output:
3. Input: 16 → -4 → ×12 → Output:
4. Input: 10 → +9 → ×3 → Output:
5. Input: 60 → +3 → ÷3 → Output:
6. Input: 20 → -2 → ÷6 → Output:
7. Input: 34 → ×2 → ÷2 → Output:
8. Input: 50 → ×4 → +6 → Output:
9. Input: 11 → ×8 → +6 → Output:
10. Input: 3 → ×3 → ² → Output:

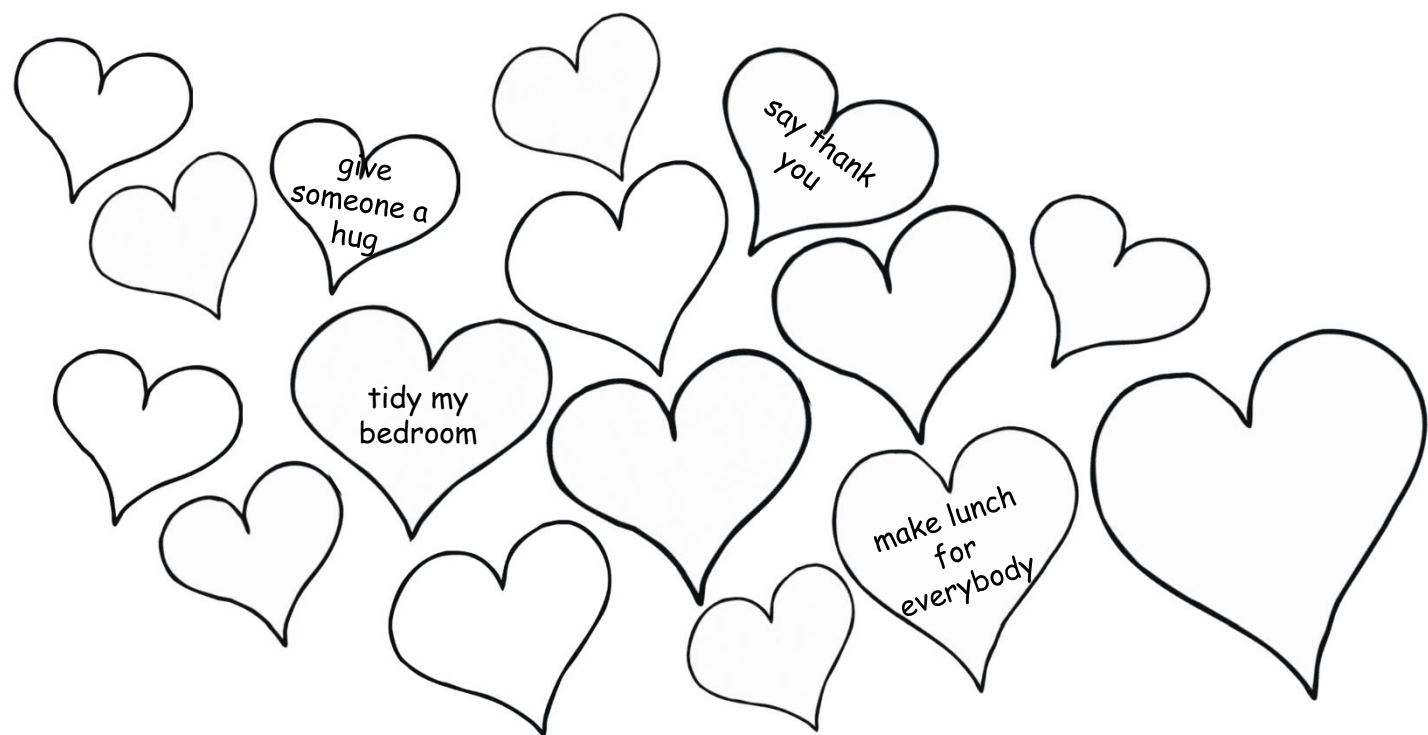
11. Input: → ×2 → Output: 30
12. Input: → -1 → ÷2 → Output: 4
13. Input: → ×5 → +6 → Output: 11
14. Input: → +2 → ÷10 → Output: 7
15. Input: → ÷8 → -2 → Output: 1
16. Input: → +14 → ×2 → Output: 80
17. Input: → +5 → ÷4 → Output: 23
18. Input: → +4 → ÷9 → Output: 3
19. Input: → -20 → ×-3 → Output: 6
20. Input: → +1 → ² → Output: 36

PSHE - Being kind to others

Especially at the moment, we need to think about how we can be kind to others because our words and behaviour will have an effect on those people at home with us.

Think carefully about how you can be kind to other people in your family. Using the hearts below, write down your own ideas about how to do this. Some ideas have been given to start you off.

Once you have recorded these ideas, start to think about how you can carry them out over the next week.



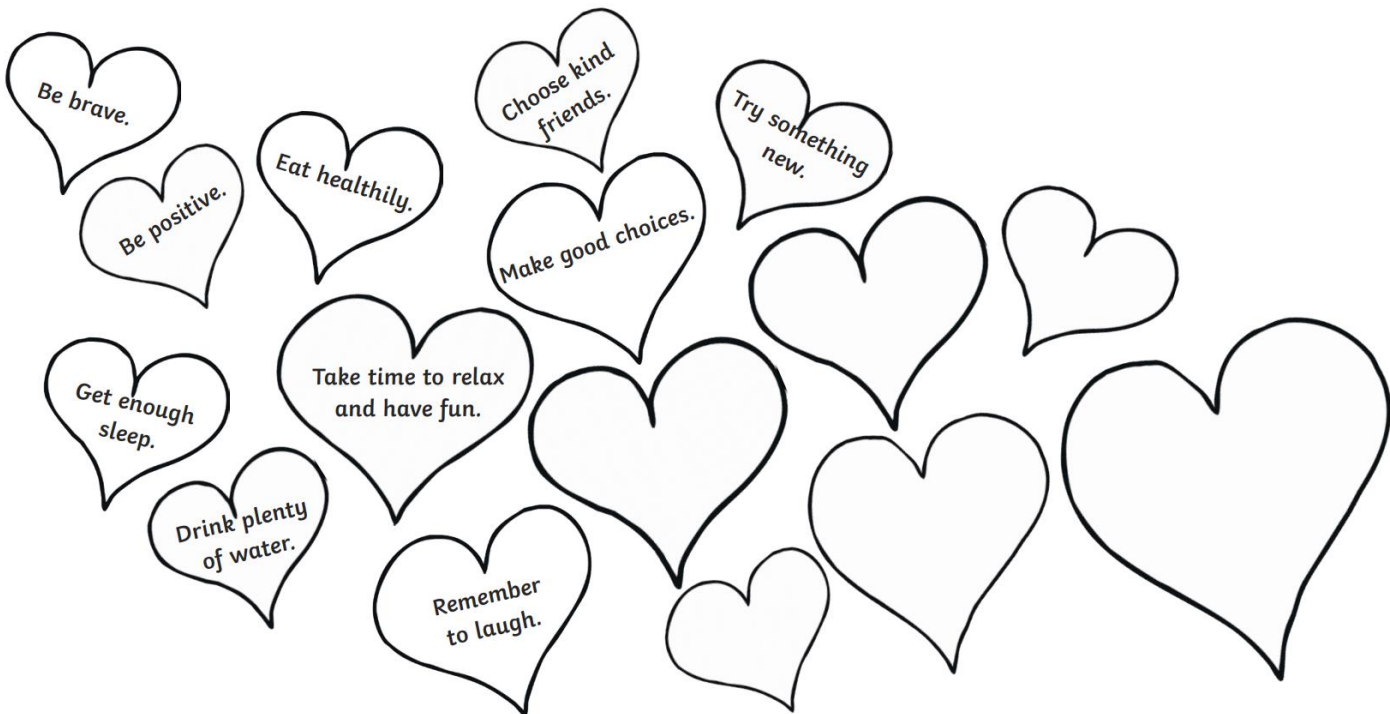
Every time you are kind to someone using one of these ideas over the next week, colour in the heart.

PSHE - Being kind to yourself

We often think about how we can be kind to others and what effect our behaviour has on other people.

Have you ever thought about how you can be kind to **yourself**? Using the hearts below, write down your own ideas about how to do this. Some ideas have been given to start you off.

Once you have recorded these ideas, start to think about how you can carry them out over the next week.



Every time you are kind to yourself using one of these ideas over the next week, colour in the heart.

ANSWERS Maths Activity 4a - ten in ten 😊

1) 712

2) 5/11

3) 562

4) 81.08

5) 322

6) 600

7) 4

8) 18/21

9) 750

10) 18055

ANSWERS Maths Activity 4b **

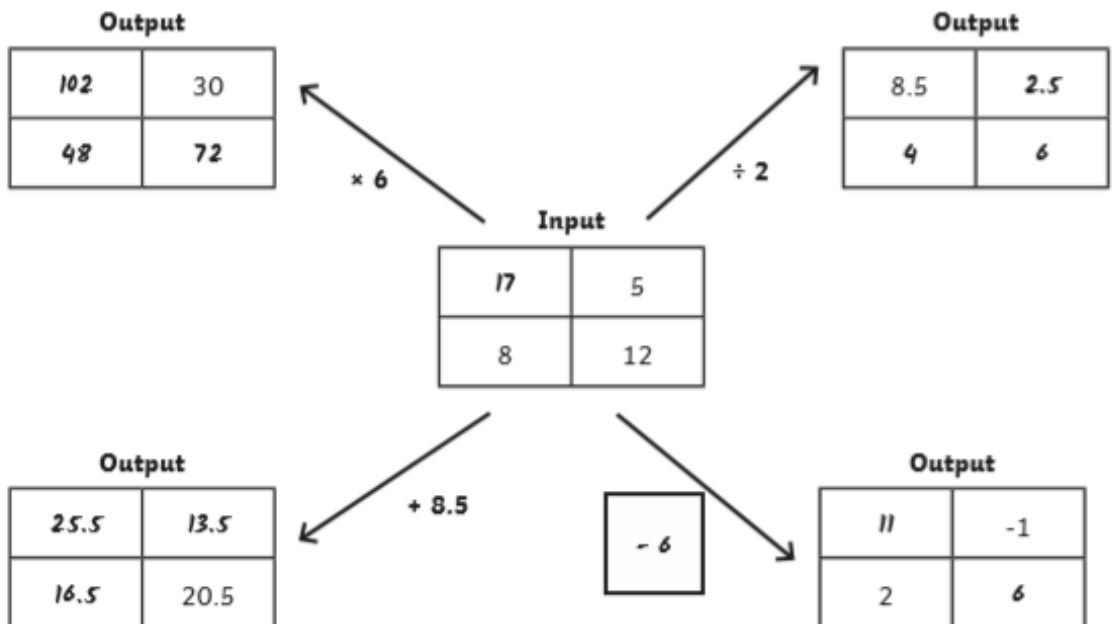
1)

Input
7
20
4.2
13
900
$\frac{1}{2}$

Function
$\times 6$

Output
42
120
25.2
78
5400
3

2)



3)

Input
9.5
99.25
-1

Function
$+ 1.75$

Output
11.25
101
0.75

ANSWERS Maths Activity 4b ** continued

- 1) a) 4
b) 68
c) 31
d) 5995
e) 16.6
f) $1\frac{3}{4}$

- 2) a) 16
b) 56
c) 7
d) 20
e) 35
f) 2.2

ANSWERS Maths Activity 4b ***

- 1) Ava's input is 27 and the output is 81.
Ben's input is 12 and the output is 36.

- 2) Answers may vary.

Example answers shown for each number given.

$$168 \div 21 = 8$$

$$28 - 20 = 8$$

$$56 - 48 = 8$$

$$56 \div 8 = 8$$

$$14 - 4 = 10$$

$$42 - 32 = 10$$

$$280 \div 28 = 10$$

$$210 \div 21 = 10$$

$$49 - 21 = 28$$

$$70 - 42 = 28$$

$$588 \div 21 = 28$$

$$84 \div 3 = 28$$

- 1) Function $\div 4$

- a) 24
b) 320
c) 4.8
d) 39

- 2) a) Answers may vary. Example answers shown for each number given.

$$20 \div 2 - 6 = 4$$

$$32 \div 2 - 12 = 4$$

$$44 \div 2 - 18 = 4$$

$$40 \div 4 - 6 = 4$$

$$44 \div 2 - 6 = 16$$

$$88 \div 4 - 6 = 16$$

$$132 \div 6 - 6 = 16$$

$$176 \div 8 - 6 = 16$$

$$60 \div 2 - 6 = 24$$

$$72 \div 2 - 12 = 24$$

$$84 \div 2 - 18 = 24$$

$$96 \div 2 - 24 = 24$$

- b) Odd numbers cannot be made due to the 'divide by 2' rule given by the function machine. If we input an odd number, we will make a decimal number, which cannot be classed as either odd or even.

ANSWERS Maths Activity 4c Challenge

Calculate the input or output of each number machine then locate each answer in the grid.

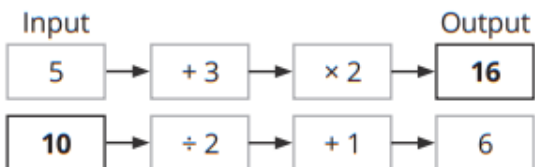
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5		3	9	2	7	1	0	7
6	7	8	1	8	4	3	2	
1	4	4	8	6	3	8	2	6
5		7	1		6	5		9
5	0	3	9	9	5	2	4	6
	0	9	7	5	9	2	0	6
5	8	0	7		8	9		2
7	9	4	6	6	8	3	7	1

Examples:



In the second example, you should complete the inverse function.

$$6 - 1 = 5$$

$$5 \times 2 = 10$$

Calculate the **output** in the following questions:

- | | Input | | Output |
|-----|-------|-------------------------|--------|
| 1. | 9 | → ×11 → | 99 |
| 2. | 18 | → +14 → | 32 |
| 3. | 16 | → -4 → ×12 → | 144 |
| 4. | 10 | → +9 → ×3 → | 57 |
| 5. | 60 | → +3 → ÷3 → | 21 |
| 6. | 20 | → -2 → ÷6 → | 03 |
| 7. | 34 | → ×2 → ÷2 → | 34 |
| 8. | 50 | → ×4 → +6 → | 206 |
| 9. | 11 | → ×8 → +6 → | 94 |
| 10. | 3 | → ×3 → □ ² → | 81 |

Calculate the **input** in the following questions:

- | | Input | | Output |
|-----|-------|-------------------------|-----------------|
| 11. | 15 | → ×2 → | 30 |
| 12. | 09 | → -1 → ÷2 → | 4 |
| 13. | 01 | → ×5 → +6 → | 11 |
| 14. | 68 | → +2 → ÷10 → | 7 |
| 15. | 24 | → ÷8 → -2 → | 1 |
| 16. | 26 | → +14 → ×2 → | 80 |
| 17. | 87 | → +5 → ÷4 → | 23 |
| 18. | 23 | → +4 → ÷9 → | 3 |
| 19. | 18 | → -20 → ×-3 → | 6 |
| 20. | 05 | → +1 → □ ² → | 36 ₅ |