Autumn 2017 Paper 1 Q3

1 Solve $\frac{y}{4} = 10.5$

$y =$ .....

(Total for Question 1 is 1 mark)

Summer 2017 Paper 1 Q3

2 (a) Simplify $7 \times e \times f \times 8$

.....

(1)

(b) Solve $\frac{x}{5} = 2\frac{1}{2}$

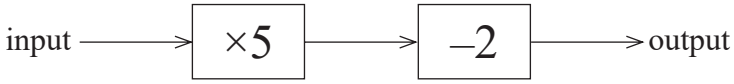
$x =$ .....

(1)

(Total for Question 2 is 2 marks)

Autumn 2018 Paper 2 Q10

3 Here is a number machine.



(a) Work out the **output** when the input is 8

.....

(1)

(b) Work out the **input** when the output is 28

.....

(2)

(Total for Question 3 is 3 marks)

Autumn 2018 Paper 3 Q1

4 Write a number in each box to make the calculation correct.

(i) 56.3 + ... = 100

(1)

(ii) $\frac{2}{7}$ + ... = 1

(1)

(Total for Question 4 is 2 marks)

Summer 2018 Paper 1 Q16

5 $P = 4x + 3y$

$x = 5$
$y = -2$

(a) Work out the value of P.

.....

(2)

(b) Expand $4e(e + 2)$

.....

(2)

(c) Solve $3(m - 4) = 21$

$m =$ .....

(2)

(Total for Question 5 is 6 marks)

Summer 2018 Paper 2 Q11

6 (a) Solve $x + x + x = 51$

$x =$ .....

(1)

(b) Solve $\frac{y}{4} = 3$

$y =$ .....

(1)

(c) Solve $2f + 7 = 18$

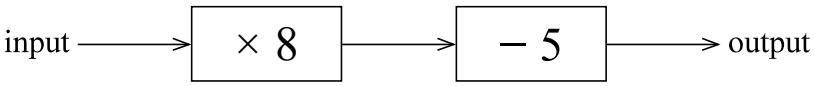
$f =$ .....

(1)

(Total for Question 6 is 3 marks)

Autumn 2019 Paper 2 Q8

7 Here is a number machine.

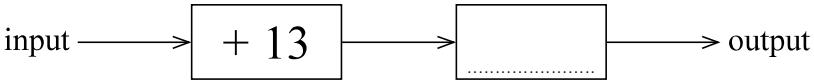


(a) Work out the output when the input is 6

.....

(1)

Here is a different number machine.



When the input is 17, the output is 10

(b) Complete the number machine.

(1)

(Total for Question 7 is 2 marks)

Autumn 2019 Paper 3 Q19

8 Solve $4(x - 6) = 44$

$x =$ .....

(Total for Question 8 is 2 marks)

Summer 2019 Paper 1 Q10

9 (a) Solve $t + t + t = 12$

$t =$ .....

(1)

(b) Solve $x - 2 = 6$

$x =$ .....

(1)

(c) Solve $6w + 2 = 20$

$w =$ .....

(2)

(Total for Question 9 is 4 marks)

Summer 2020 Paper 1 Q12

10 The diagram shows a number machine.

(a) Find the output when the input is 7

.....

(1)

(b) Find the input when the output is 41

.....

(2)

(Total for Question 10 is 3 marks)

Summer 2020 Paper 2 Q10

11 (a) Solve $3m = 36$

$m =$ .....

(1)

(b) Solve $7 - x = 3$

$x =$ .....

(1)

(Total for Question 11 is 2 marks)

Autumn 2021 Paper 1 Q15

12 (a) Expand $2(a + d)$

.....

(1)

(b) Factorise $6y^2 - 5y$

.....

(1)

(c) Solve $4x - 7 = 37$

$x =$.....

(2)

(Total for Question 12 is 4 marks)

Autumn 2022 Paper 1 Q8

13 (a) Solve $m - 3 = 4$

$m =$ .....

(1)

(b) Solve $3n + n = 24$

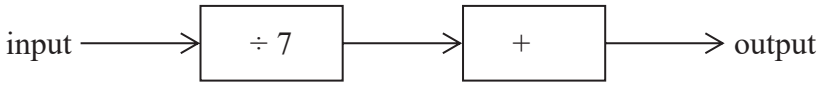
$n =$ .....

(2)

(Total for Question 13 is 3 marks)

Summer 2022 Paper 2 Q12

14 Here is a number machine.

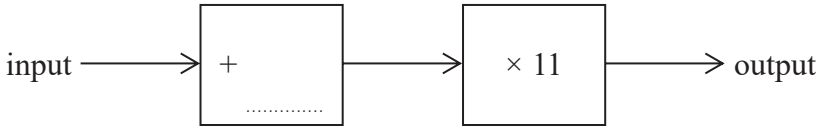


(a) Work out the output when the input is 28

.....

(1)

Here is a different number machine.
The number machine is not complete.



When the input is 8, the output is 154

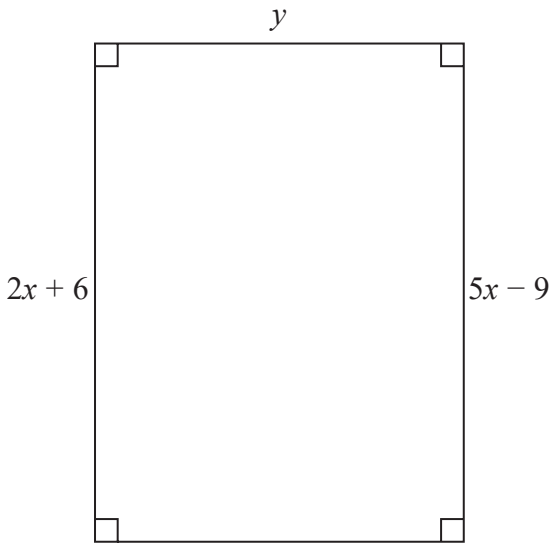
(b) Complete the number machine.

(2)

(Total for Question 14 is 3 marks)

Autumn 2017 Paper 1 Q28

15 Here is a rectangle.



All measurements are in centimetres.

The area of the rectangle is 48 cm^2.

Show that $y = 3$

(Total for Question 15 is 4 marks)

Autumn 2017 Paper 2 Q16

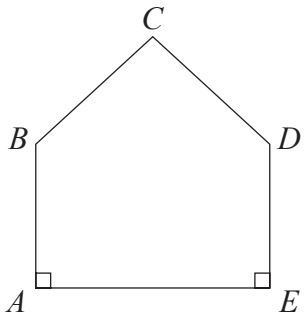
16 Solve $5x - 6 = 3(x - 1)$

$x =$.....

(Total for Question 16 is 3 marks)

Autumn 2018 Paper 3 Q17

17 The diagram shows a pentagon.
The pentagon has one line of symmetry.



$AE = 4x$
$AB = 2x + 1$
$BC = x + 2$

All these measurements are given in centimetres.

The perimeter of the pentagon is 18 cm.

(a) Show that $10x + 6 = 18$

(3)

(b) Find the value of x.

$x =$ .....

(2)

(Total for Question 17 is 5 marks)

Summer 2018 Paper 3 Q25

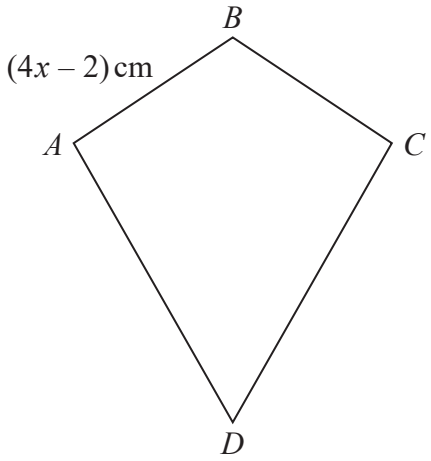
18 Solve $\frac{5 - x}{2} = 2x - 7$

$x =$ .....

(Total for Question 18 is 3 marks)

Autumn 2021 Paper 1 Q16

19 *ABCD* is a kite.



$AB = (4x - 2)\,\text{cm}$

Jasper says that x could be 0.5

(a) Explain why Jasper cannot be correct.

.....

.....

.....

(1)

$AD = 3AB$
The kite has a perimeter of 64 cm.

(b) Find the value of x.

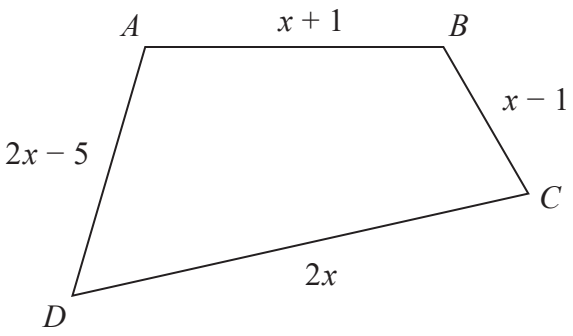
$x =$.....

(3)

(Total for Question 19 is 4 marks)

Autumn 2022 Paper 1 Q16

20 Here is a quadrilateral *ABCD*.



All the measurements are in centimetres.

The perimeter of *ABCD* is 52 centimetres.

Work out the length of *DC*.

..... centimetres

(Total for Question 20 is 4 marks)