

Year 7

Mathematics

Higher: No calculator allowed

Time allowed: 45 minutes

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
Teacher						

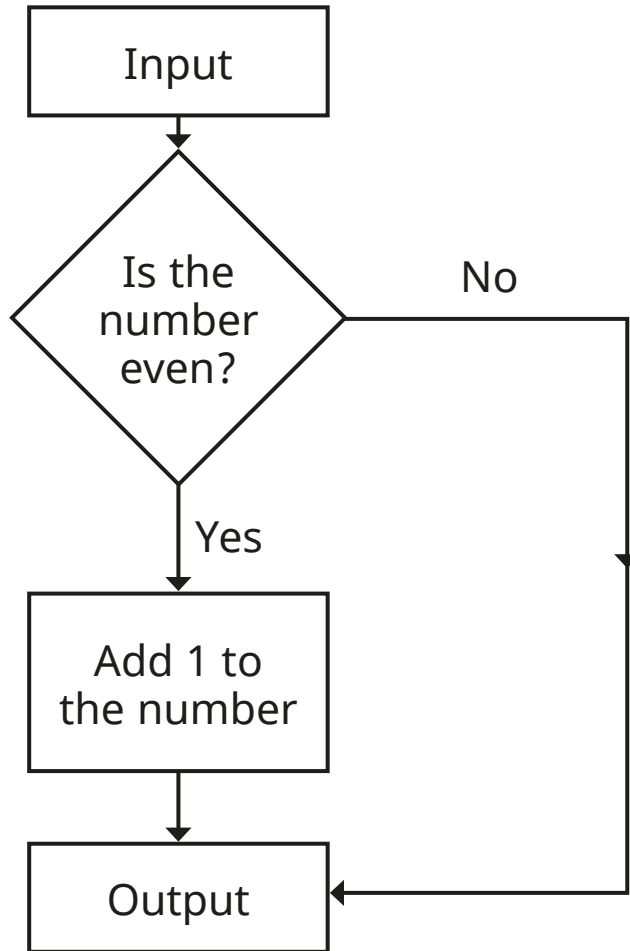
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For more information, please visit www.whiterosemaths.com



1

Here is a flow chart.



Find the output when the input is 264

1 mark

Write two numbers that give the output 81

 and

1 mark

2

For each number, write the value of the 7 in words.

476 315 510

1 mark

6.4372

1 mark

Round each number to one significant figure.

476 315 510

1 mark

6.4372

1 mark

3

Solve the equations.

$$40 - x = 4$$

1 mark

$$\frac{40}{x} = 4$$

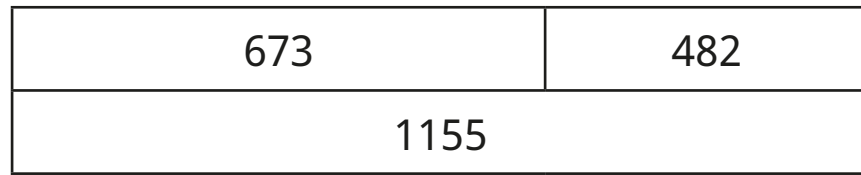
1 mark

$$40x = 4$$

1 mark

$$\frac{4}{x} = 40$$

1 mark

4The bar model shows $673 + 482 = 1155$ 

Work out the calculations.

$1155 - 673 =$

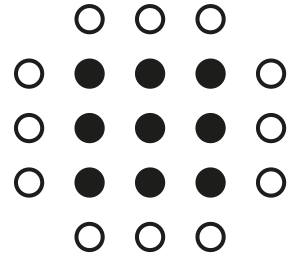
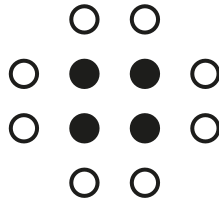
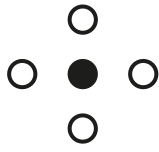
1 mark

$1155 - 483 =$

1 mark

5

How many dots are in the next term of this sequence?



1 mark

Explain how you know the sequence is not linear.

1 mark

6

When $x = 7$, which of these cards will have the median value?

Tick your answer.

You must show your working.

$$x^2$$

$$3x - 5$$

$$4 + 2x$$

$$5x$$

$$100 - 3x$$

7

The n^{th} term of a sequence is given by $10n - 7$

Find the 8th term of the sequence.

1 mark

Will any of the terms of the sequence be even?

Circle your answer.

Yes

No

Explain how you know.

1 mark

8

Simplify the expressions.

$$a^2 + a^2 + a^2 \equiv \underline{\hspace{2cm}}$$

1 mark

$$6a + 8a \equiv 19a - \underline{\hspace{2cm}}$$

1 mark**9**

Put these numbers in order of size, starting with the smallest.

$$0.75 \qquad \frac{7}{12} \qquad \frac{5}{6} \qquad \frac{2}{3}$$

2 marks

$$6 \times 10^4 \qquad 4 \times 10^6 \qquad 4 \times 10^{-6} \qquad 6 \times 10^{-4}$$

2 marks

10

$$H = g^3 + 7g$$

Work out the value of H when $g = 2$

$$H =$$

2 marks

$$A = 2bc$$

$A = 200$ and $b = 2$

Work out the value of c .

$$c =$$

2 marks

Complete the statements.

$$\frac{7}{5} > \frac{\square}{10}$$

1 mark

$$2 < \frac{\square}{8} < 2\frac{3}{4}$$

1 mark

12

Some students were asked to choose between two options for a school trip.

60% chose a theme park and $\frac{1}{8}$ chose an outdoor events centre.

The others had no preference.

What percentage of students had no preference?

2 marks

13

Write each fraction as a percentage.

$$\frac{1}{3} = \text{[] \%}$$

1 mark

$$\frac{32}{80} = \text{[] \%}$$

1 mark

$$\frac{80}{32} = \text{[] \%}$$

1 mark

14

Find the missing numbers in the linear sequences.

5, , , 11

5, , , , 11

2 marks

Find the missing numbers in the geometric sequence.

250, , , 2

1 mark

Find the missing numbers in this Fibonacci sequence.

5, , , 23

1 mark

END OF TEST

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