

Spring Assessment

Year 8

Mathematics

Core: Calculator allowed

Time allowed: 45 minutes

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
Maths Group						

1

Round 6.649 to 1 decimal place.

1 mark

Round 37.835 to 2 significant figures.

1 mark

2

Choose the most appropriate unit to measure the length of a football pitch.

Circle your answer.

m

mm

km

1
mark

Choose the most appropriate unit to measure the weight of a person.

Circle your answer.

g

mg

kg

1
mark

Change 6.7 litres to millilitres.

ml

1
mark

3Put $>$, $<$ or $=$ in each box to make these statements correct.

$$5(x - 2) \quad \square \quad 3x + 5$$

$$3(2x + 2) \quad \square \quad 6(x + 1)$$

2
marks

4

A bag contains 12 blue and 36 white counters.

Write the ratio of blue counters to white counters in the bag.

Give your answer in **simplest** form.

1
mark

One counter is taken at random out of the bag.

What is the probability that the counter is pink?

1
mark

What is the probability that the counter is white?

1
mark

5Which of these is equal to $c^9 \times c^5$?

Circle your answer.

c^4

c^8

c^{14}

c^{45}

c^{95}

1 markWhich of these is equal to $h^8 \div h^4$?

Circle your answer.

2

h^2

h^4

h^{-4}

1 mark

6

Choose the correct word from the box to complete the sentences.

expression**identity****equation****term****coordinate** $26 = 5x + 1$ is an example of a/an _____ $3(x + 2) \equiv 3x + 6$ is an example of a/an _____

2 marks

7

Solve the equation.

$$5x = 175$$

1 mark

Solve the inequality.

$$4y - 3 > 15$$

2 marks

8

Work out 37% of £52.

Give your answer correct to one decimal place.

2
marks

9

The ratio of boys to girls in a class is 3 : 5.

What fraction of the class are girls?

1
mark

What percentage of the class are boys?

1
mark

There are 15 girls in the class.

How many students are there in the class altogether?

2
marks

10

Bobby sat two maths tests.

Test A	Test B
68%	14 out of 18

In which test did Bobby score the highest percentage?

You must show your working.

Test

2 marks

11

The n^{th} term of a sequence is $2n + 3$

Find the 10th term of the sequence.

1
mark

Here is part of the same sequence.

Fill in the boxes with the missing

terms.

..., , 43, , ...

1
mark

The n^{th} term of another sequence is $n^2 + 8n + 4$

Find the 10th term of the sequence.

1
mark

12Write 2.37×10^3 as an ordinary number._____
1
mark

Write 0.00702 in standard form.

1
mark**13**

Factorise

$$40 + 5t$$

1
mark

Expand and simplify

$$7(4m - 6) + 9m$$

2
marks

14The point $(5, 13)$ lies on the line $y = 2x + 3$

Complete the coordinates for two other points that lie on this line.

 $(7, \square)$ $(\square, 9)$

2
marksWhich of these other lines does the point $(7, 9)$ lie on?

Circle your answers.

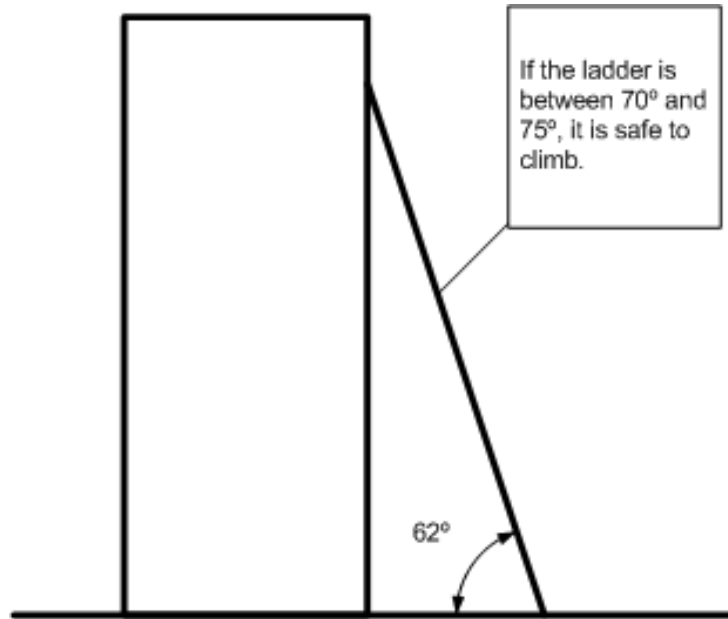
 $y = 7$ $x = 7$ $y = 9$ $x = 9$

1
mark

15

A ladder is safe to climb if the angle between the ground and the ladder is between 70° and 75°

Hollie's ladder is at an angle of 62°



John says,

“Increase your angle by 15% and your ladder will be safe to climb.”

Is John correct?

Show your reasoning.

2 marks

16

Here are two cards.

$$5n^2$$

$$(5n)^2$$

Joseph says,

*The cards are
equal when $n = 5$*

Olivia says,

*The cards are not
equal when $n = 5$*

Who is correct?

Show your working.

END OF TEST

2 marks

