

United Curriculum

Mid-Year Assessment 2024-25

Mathematics

Time: 1 hour

Year 9

Non-Calculator Mid-Year Assessment

Surname:

First name(s):

Class name / number:

You must have: a pencil, ruler, protractor and tracing paper.



Instructions

- Fill in the boxes on the front page.
- Use a black ink pen. Draw diagrams in pencil.
- You may **not** use a calculator.
- The marks for each question are shown.
- Answer the questions in the space provided.
- Show **clearly** how you work out your answer.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Advice

- Read each question carefully before you begin.
- Try your best to answer every question. If you have time, go back and review your answers.

For Teacher use only:

TOTAL MARKS	
	60

 | 60 |

Question 1

Write 0.6 as a percentage.

Answer =

	1
--	---

Question 2

Simplify $2a + 9a - 3a$

Answer =

	1
--	---

Question 3

Round 14.392 to two decimal places.

Answer =

	1
--	---

Question 4

Solve

4a. $\frac{x}{2} = 0.5$

$x =$

	1
--	---

4b. $a + 2 = -1$

$a =$

	1
--	---

Question 5

Work out

5a. $12.7 + 3.92$

	2

Answer =

5b. $12 \div 0.4$

	2

Answer =

Question 6

Solve

$$y + y + y = \frac{3}{10}$$

Answer =

	1

Question 7

Calculate

$$\frac{2}{5} + \frac{2}{3}$$

Give your answer as a mixed number.

Answer =

	2

Question 8Factorise $8a - 32b$

Answer =

	1

Question 9

Estimate

$$\frac{49 \times 811}{0.41}$$

Answer =

	2

Question 10

Given $y = a + 7$

Write down the expression for $2y$.

Answer =

	1
--	---

Question 11

11a. Write down the reciprocal of 11.

Answer =

	1
--	---

11b. Write 8×2^2 as a single power of 2.

Answer =

	2
--	---

11c. Write down the value of 5^0 .

Answer =

	1
--	---

Question 12Work out 32.1×2.4

Answer =

	3
--	---

Question 13

Which is greater?

 $\frac{2}{5}$ of 40 or $\frac{5}{2}$ of 10

You must show your working.

Answer =

	2
--	---

Question 14

Truncate 0.957436 to 2 decimal places.

Answer =

	1
--	---

Question 15

Simplify

15a. $a^6 \div a^{-1}$

	1
--	---

Answer =

15b. $(x^3)^2$

	1
--	---

Answer =

Question 1616a. Write 3.4×10^4 as a normal number.

	1
--	---

Answer =

16b. Calculate $(7.1 \times 10^3) \times (4 \times 10^5)$.

Write your answer in standard form.

	2
--	---

Answer =

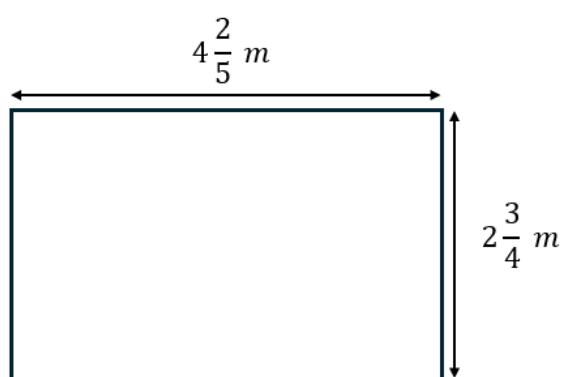
Question 17

Gbemi wants to cover her garden with grass seeds.

Grass seeds are sold in packets that cover $1m^2$ and cost £2.50 each.

Her garden is shown below.

Work out how much it will cost to cover her garden.



Answer =

.....

	5
--	---

Question 18

The weight (w) of a car is 1500kg, rounded to two significant figures.

Work out the upper bound of the weight of the car.

Answer =
.....

	1
--	---

Question 19

Here is an identity.

$$(x - 3)^2 \equiv x^2 + bx + c$$

Work out the values of b and c .

b =
.....

c =
.....

	2
--	---

Question 20

Given that $92 \times 320 = 29\,440$
find the value of

$$2944 \div 92$$

Answer =

	1
--	---

Question 21

Write the following expression as a single fraction in its simplest form.

$$\frac{2x - 5}{3} - \frac{x + 2}{6}$$

Answer =

	3
--	---

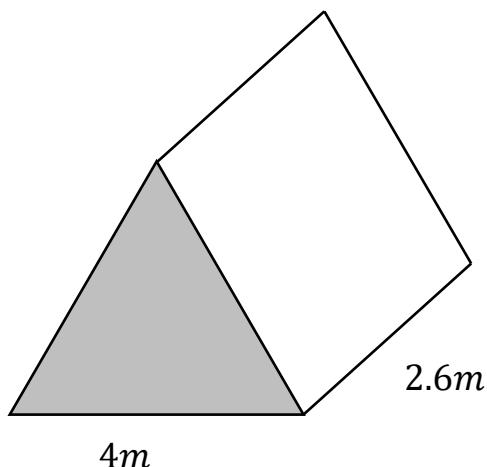
Question 22

A triangular prism is shown below.

It has a volume of $52m^3$.

The depth of the prism is $2.6m$.

Work out the vertical height of the prism.



Answer = m

	4
--	---

Question 2323a. Factorise $2x^2 - 72$

Answer =

	2
--	---

23b. Factorise $x^2 + 11x + 10$

Answer =

	2
--	---

Question 24

24a. Write 210 as a product of its prime factors.

Answer =

	2
--	---

24b. Given that

$$2880 = 2^6 \times 3^2 \times 5$$

$$A = 6 \times 10^6$$

find the highest common factor of A and 2880.

Answer =

	4
--	---

Question 25

Work out the value of n

$$\frac{1}{32^{\frac{4}{5}}} = 4^n$$

$n =$

.....

	3
--	---

END OF ASSESSMENT

This is the end of the assessment.
There are no questions printed on this page.