



CANDIDATE  
NAME

CENTRE  
NUMBER

CANDIDATE  
NUMBER

Secondary 1

09/08/23

MATHEMATICS

August 2023

Paper 2

1 hr

You must answer on the question paper.

You will need: Black or Blue Pen

INSTRUCTIONS

- Answer **all** questions.
- Use the black or dark blue pen.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided
- Do **not** use an erasable pen or correction fluid.
- You should show all your working in the booklet.
- You are allowed to use a calculator.

INFORMATION

- The total mark for this paper is 50.
- The number of marks for each question or part question is shown in brackets [ ].

For Teacher's Use	
Page No	Marks
2	
3	
4	
5	
6	
7	
8	
Total	

This document has 9 pages. Any blank pages are indicated

[Turn over]



1 Circle the correct calculation that shows how to decrease \$150 by 25%.

$150 \times 0.25$

$150 \times -0.25$

$150 \times 0.75$

$150 \times 1.5$

[1]

2 Write brackets in the calculation to make it correct.

a.  $12 + 15 \div 3 - 1 = 8$

..... [1]

b. Jimmy works out the answer to  $20 - 2 \times 3 + 5$   
Here is his working.

$20 - 2 \times 3 + 5 = 20 - 6 + 5 = 20 - 11 = 9$

Is Yannis’ work correct? Tick (✓) a box.

Yes ☐

No ☐

Explain your answer.

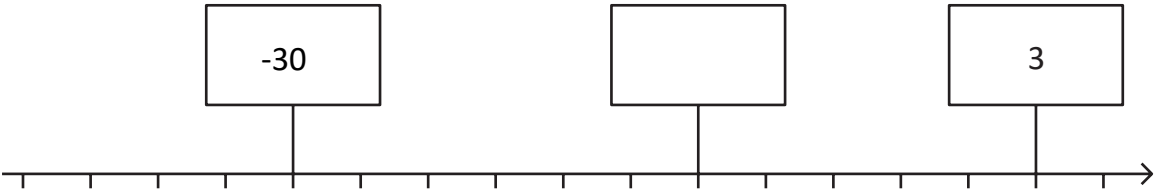
.....

.....

.....

..... [3]

3 Write the missing number in the box on this number line. Put the corresponding numbers in the number line as well.



[2]

4 (a) Work out an estimate of:  $\frac{0.45 \times 679}{2.465}$ .

[2]

(b)

On a calculator, work out the accurate value. [1]

(c) Compare your answers to parts a and b.

Do you think your accurate answer is correct?

Explain why.

[1]

5 Write the letter for each calculation in the correct column of the table. One has been done for you.

A

6 × 8

B

6<sup>5</sup> × 6<sup>3</sup>

C

(6<sup>4</sup>)<sup>2</sup>

D

6<sup>2</sup> × 6<sup>4</sup>

Equal to 6 <sup>8</sup>	Not equal to 6 <sup>8</sup>
	A

..... [2]

6 Write 96 as a product of its prime factors. Write the answer in an Index Form.

..... [2]

7 Write these decimal numbers in order of size, starting with the smallest.

-25.425, -25.81, 25.08, -25.5, 25.84

\_\_\_\_\_ [2]

8 Work out these multiplications. There are 2 answers per problem.

Show how to check your answers using estimation before giving the accurate answer.

a  $2.2 \times 5.6$

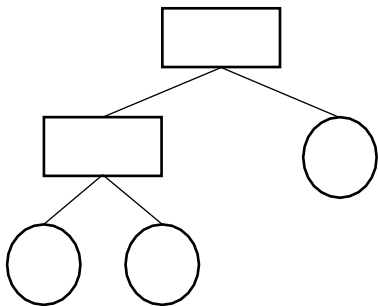
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b  $1.12 \times 0.35$

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

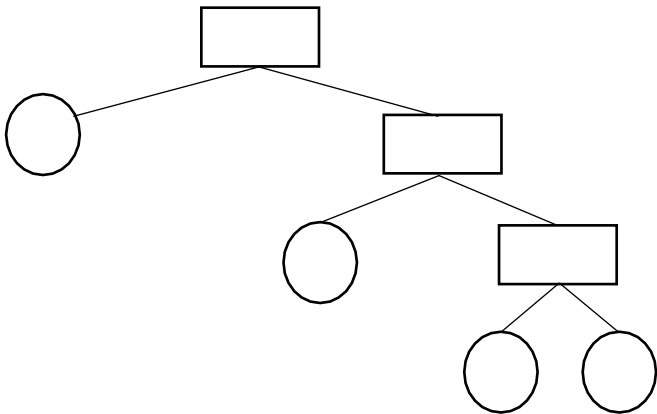
[4]

9 Complete the prime factor tree for 63



..... [2]

10 Complete the prime factor tree for 230



..... [2]

11 The mass of a child increases from 16.0 kg to 18.2 kg.

Work out the percentage increase.

.....  
..... [2]

12 The population of a town increases from 55 000 to 93 000.

Work out the percentage change.

.....  
..... [2]

13 The table shows some information about divisibility.

Number	Divisible by 6	Divisible by 8	Divisible by 9
240	✓	✓	✗
945			
684			
636			

Complete the table using ticks (✓) and crosses (✗).  
The first row has been done for you.

..... [2]

14 Work out these divisions. There are 2 answers per problem.

Show how to check your answers using estimation before giving the accurate answer.

a  $35.6 \div 0.7$

b  $-4.15 \div 0.3$

[4]

15 a On a calculator, work out the answer to  $17^3 - \sqrt{329}$ .

Write down all the numbers on your calculator display.

..... [1]

b Round your answer to part a to the stated number of significant figures (s.f.).

i 1 s.f. ....

ii 5 s.f. ....

[2]

- 16** Write these fractions in order of size, starting with the smallest:  $4\frac{2}{3}$ ,  $7\frac{7}{9}$ ,  $6\frac{4}{5}$ ,  $3\frac{5}{6}$ ,  $5\frac{2}{9}$

\_\_\_\_\_ [1]

- 17** a Increase 500 by 45%. \_\_\_\_\_ [1]

b Decrease 360 by 60%. \_\_\_\_\_ [1]

- 18** Work these out. Write your answers in their simplest form and as a mixed number when possible.

a  $13\frac{4}{5} + 29\frac{7}{9}$  \_\_\_\_\_

\_\_\_\_\_

b  $\frac{3}{4} \times \frac{4}{9}$  \_\_\_\_\_

\_\_\_\_\_

c  $\frac{3}{5} \div \frac{3}{10}$  \_\_\_\_\_

\_\_\_\_\_

[3]

- 19** Circle the fractions in this list that are equal to recurring decimals.

$$\frac{5}{6}$$

$$\frac{4}{5}$$

$$\frac{3}{8}$$

$$\frac{7}{15}$$

$$\frac{4}{9}$$

$$\frac{3}{20}$$

[2]



**20** There were 13 435 male and 10475 female supporters at a baseball match.

How many supporters were there altogether?

Give your answer correct to two significant figures.

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[2]

**21** Choose the correct digits that will make each statement true. Circle the correct number.

- a. 423\_\_\_\_\_ is divisible by 3.

a. 2

b. 7

c. 4

d. 6
- b. 1,15\_\_\_\_\_ is not divisible by 6.

a. 0

b. 1

c. 2

d. 4

..... [2]

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