



EXAMINATIONS COUNCIL OF ESWATINI
Eswatini General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

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CANDIDATE
NUMBER

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MATHEMATICS

6880/01

Paper 1 Short-Answer Questions (Core)

October/November 2022

Candidates answer on the Question Paper.

1 hour

Additional Materials: Geometrical instruments
Tracing paper (optional)

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces provided.
Write in dark blue or black pen in the spaces provided on the Question paper.
You may use an HB pencil for any diagrams or graphs.
Do **not** use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions.

If working is needed for any question it must be shown below that question.
The number of marks is given in brackets [] at the end of each question **or**
part question.

Electronic calculators should be used.
If the degree of accuracy is not specified in the question, and if the answer
is not exact, give the answer to three significant figures.
Give answers in degrees to one decimal place.

For π , use either your calculator value or 3.142.
The total of the marks for this paper is 60.

For Examiner's Use	
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Total	

This document consists of 12 printed pages.

- 1 List the prime factors of 84.

Answer [2]

- 2 Find the lowest common multiple of 20 and 26.

Answer [2]

- 3 **Without using a calculator**, work out the following.

You must show all your working and give each answer as a fraction.

(a) $\frac{3}{5} + \frac{2}{7}$

Answer (a) [2]

(b) $1\frac{4}{5} \times \frac{2}{3}$

Answer (b) [2]

4 From the list of numbers 2 16 18 39 27,
write down

(a) a prime number,

Answer (a) [1]

(b) a cube number.

Answer (b) [1]

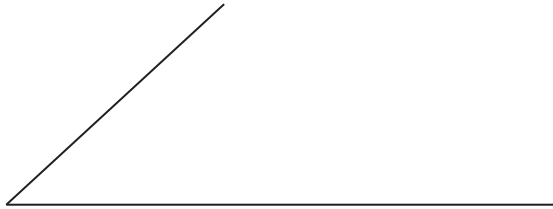
5 Sonto deposited E300 at a bank.

The bank paid simple interest at a rate of 8% per year.

Calculate the **total** amount of money she received after **8 months**.

Answer E [3]

- 6 The two lines shown are two sides of a polygon with rotational symmetry of order 2.
Complete the polygon.



[2]

-
- 7 (a) Simplify $5p + 2q - 9p$.

Answer (a) [1]

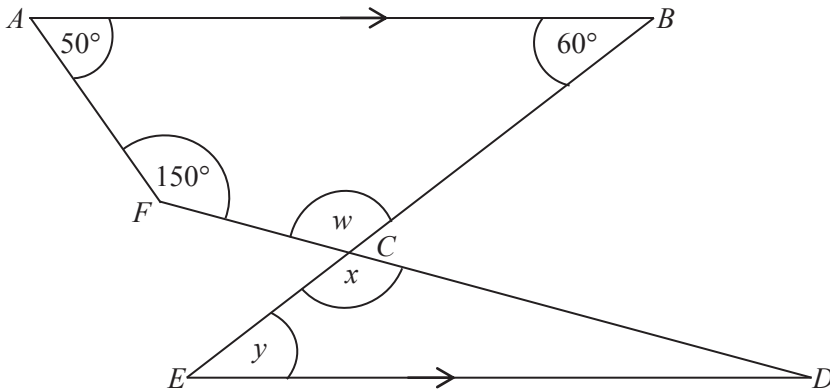
- (b) You are given that $P = 3t - 7s$.

Find P when $t = -2$ and $s = -4$.

Answer (b) [2]

- 8 In the diagram, AB and DE are parallel.

DIAGRAM NOT ACCURATELY DRAWN



BCE and FCD are straight line segments.

$\hat{FAB} = 50^\circ$, $\hat{ABE} = 60^\circ$ and $\hat{AFD} = 150^\circ$.

Calculate the following angles.

- (a) w

Answer (a) $w = \dots\dots\dots^\circ$ [2]

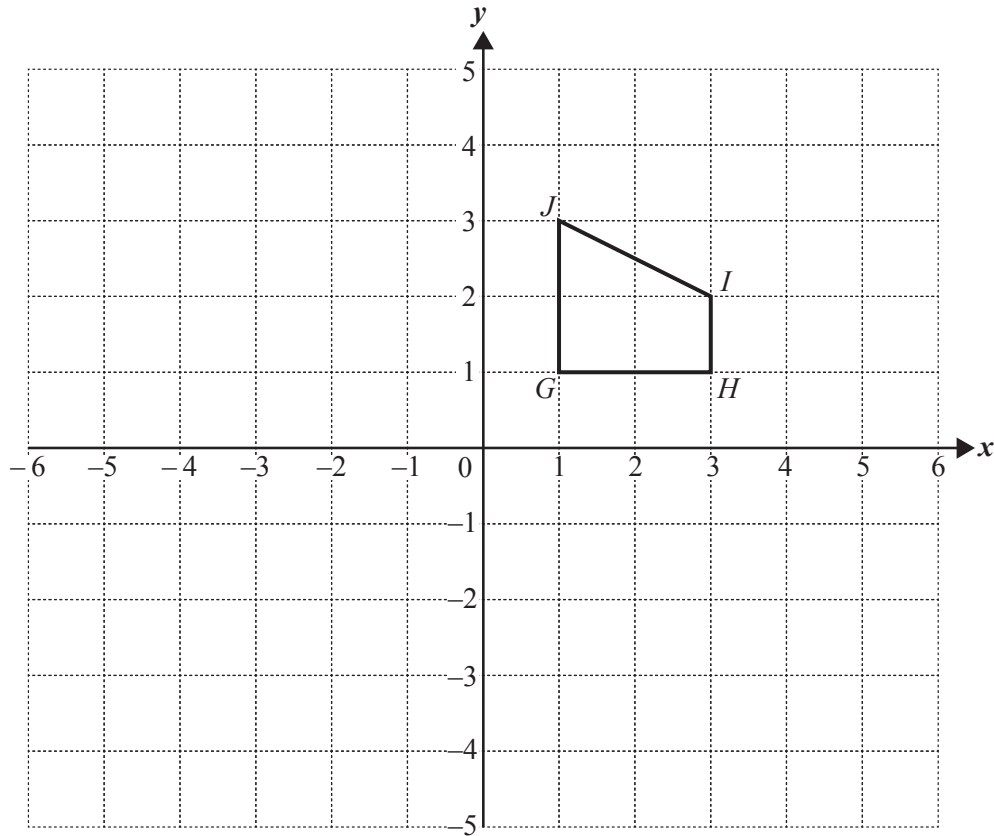
- (b) x

Answer (b) $x = \dots\dots\dots^\circ$ [1]

- (c) y

Answer (c) $y = \dots\dots\dots^\circ$ [1]

9 Figure $GHIJ$ is shown on the grid.



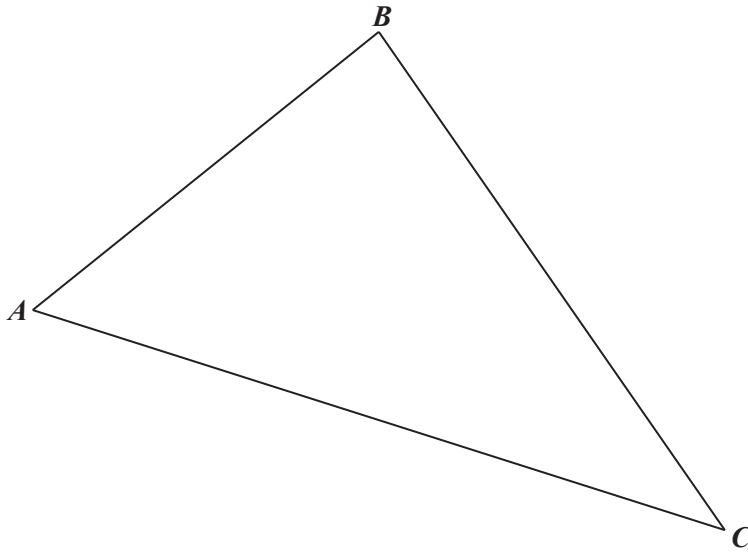
(a) Write down the coordinates of point H .

Answer (a) [1]

(b) (i) Reflect $GHIJ$ in the line $y = 0$. Label the image $G_1H_1I_1J_1$ [2]

(ii) Translate $GHIJ$ with vector $\begin{pmatrix} 3 \\ 2 \end{pmatrix}$. Label the image $G_2H_2I_2J_2$. [2]

10 The diagram shows triangle ABC .



(a) Using a ruler and a pair of compasses only, construct

(i) the perpendicular bisector of BC ,

[2]

(ii) the bisector of angle ABC .

[2]

(b) The bisectors meet at point D .

Mark and label point D .

[1]

11 Solve.

(a) $\frac{x}{3} = -7$

Answer (a) $x = \dots\dots\dots$ [1]

(b) $11x = 2x + 45$

Answer (b) $x = \dots\dots\dots$ [2]

12

9 2 5 2 1 7 3 2

For this list of numbers, find

(a) the mode,

Answer (a) $\dots\dots\dots$ [1]

(b) the range,

Answer (b) $\dots\dots\dots$ [1]

(c) the median,

Answer (c) $\dots\dots\dots$ [2]

(d) the mean.

Answer (d) $\dots\dots\dots$ [2]

- 13 (a)** John bought 3 kg of peaches and 5 kg of mangoes for E50 from a fruit shop.

Let E_x be the price of 1 kg of peaches and E_y be the price of 1 kg of mangoes in Emalangeni.

Form an equation to represent the above information.

Answer (a) [2]

- (b)** Solve the simultaneous equations.

$$2x + 3y = 31$$

$$5x - 3y = 4$$

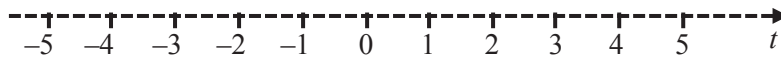
Answer (b) $x = \dots\dots\dots$ and $y = \dots\dots\dots$ [3]

14 (a) Make a the subject of the equation.

$$\frac{5}{2}a - 7 = 3x$$

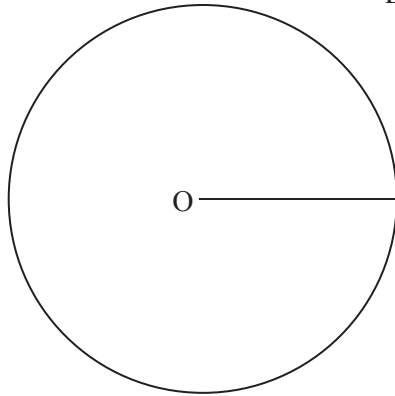
Answer (a) [2]

(b) On the number line, show the inequality $-2 \geq t$. [2]



15 The diagram shows a circle of diameter 14.6 cm.

DIAGRAM NOT ACCURATELY DRAWN



Calculate

(a) the radius of the circle,

Answer (a) cm [1]

(b) the circumference,

Answer (b) cm [2]

(c) the area of the circle.

Answer (c) cm² [2]

16 Evaluate each of the following without using a calculator.

Give your answers in standard form. You must show your working.

(a) $2 \times 10^3 \times 6.4 \times 10^3$,

Answer (a) [2]

(b) $5 \times 10^6 - 1.5 \times 10^4$.

Answer (b) [3]
