



EXAMINATIONS COUNCIL OF ESWATINI
Eswatini General Certificate of Secondary Education

CANDIDATE
NAME

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CENTRE
NUMBER

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MATHEMATICS

6880/01

Paper 1 Non-Calculator Short Answer Questions (Core and Extended)

October/November 2020

Candidates answer on the Question Paper.

1 hour 30 minutes

Additional Materials: Geometrical instruments
Tracing paper (optional)

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on 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.
You are **not** allowed to use a calculator.

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.
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.

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 Round 214.46 correct to

(a) one decimal place,

Answer (a) [1]

(b) the nearest 30.

Answer (b) [1]

2 Evaluate $\sqrt{6^2 + 4^3}$.

Answer % [2]

3 Express 56 mm as a percentage of 800 mm.

Answer [2]

4 Solve the equation.

$$3(2x - 4) = 42$$

Answer $x =$ [2]

- 5 Write the following numbers in order of size, starting with the smallest.

$$-\frac{5}{4}, -1, 2, -10, -\frac{4}{5}$$

Answer,,,, [2]
smallest

- 6 You are given that $f(x) = 5x - 7$.

(a) Evaluate $f(2)$.

Answer (a) $f(2)$ [1]

(b) Find an expression for $f^{-1}(x)$.

Answer (b) $f^{-1}(x)$ [2]

- 7 Write the next two numbers of this sequence.

1, 3, 6, 10,

Answer, [2]

8 Express the number 0.000451 in standard form.

Answer [2]

9 Solve the following.

(a) $x^2 - 9x = 0$

Answer (a) $x = \dots\dots\dots$ or $x = \dots\dots\dots$ [2]

(b) $\frac{3-p}{5} \leq 1$

Answer (b) [3]

10 Work out

(a) 0.0375×100 ,

Answer (a) [1]

(b) $0.885 + 0.0045$,

Answer (b) [1]

(c) $\frac{3}{7} - \frac{1}{5}$.

Answer (c) [2]

11 Make t the subject of the equation.

$$a(t - b) = 2y$$

Answer $t =$ [3]

12 Janie buys a jacket.

The price of the jacket is E800.

Value added tax (V.A.T.) is charged at a rate of 14% of the price.

Calculate the **total** amount of money Janie would pay for the jacket.

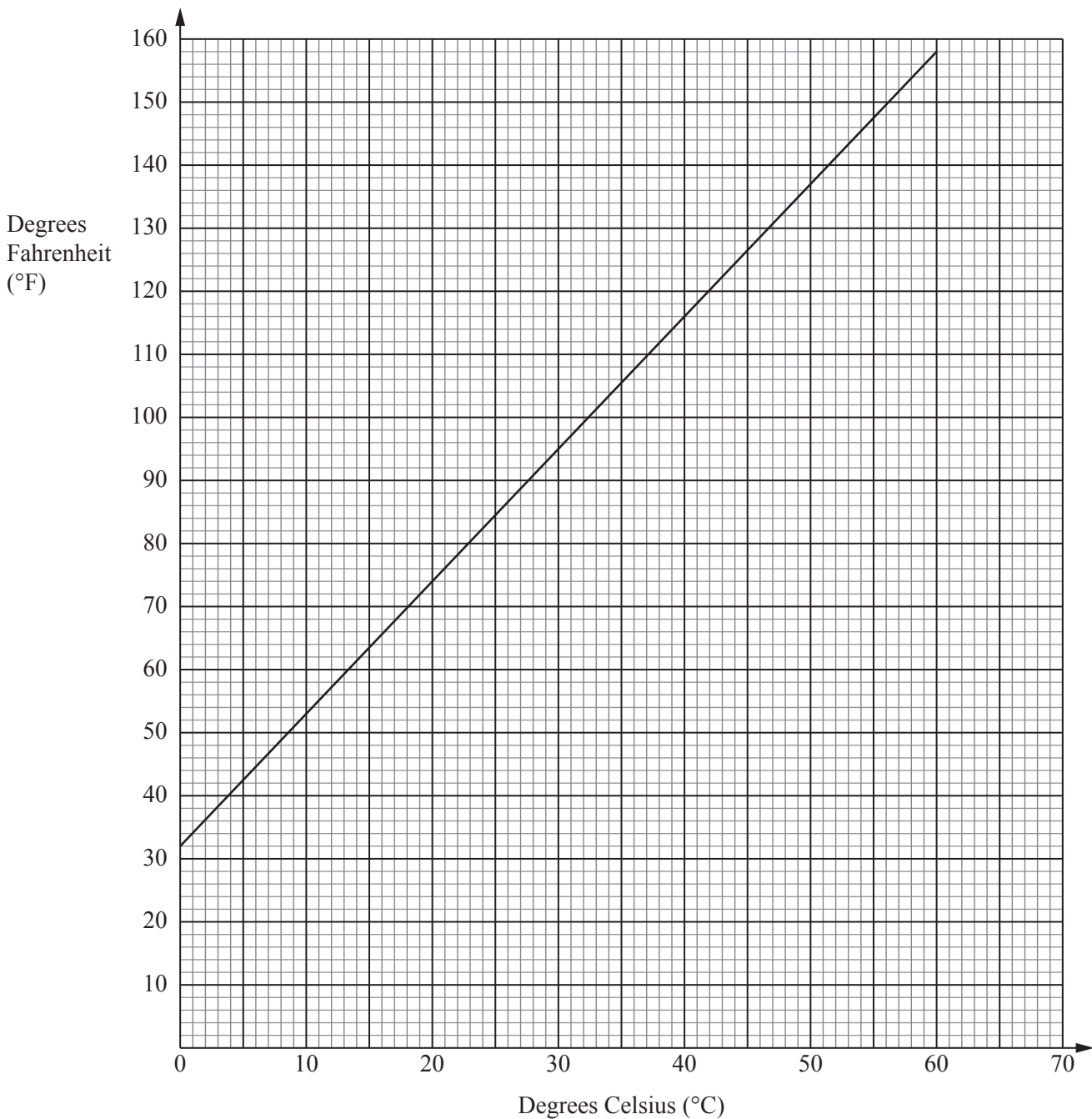
Answer E [2]

13 Simplify the following.

$$\frac{24x^5}{y^2} \div \frac{8x^2}{y^3}$$

Answer [2]

- 14 The graph shows the conversion of temperatures between degrees Celsius ($^{\circ}\text{C}$) and degrees Fahrenheit ($^{\circ}\text{F}$)



Use the graph to convert

- (a) 60°C to degrees Fahrenheit,

Answer (a) $^{\circ}\text{F}$ [1]

- (b) 50°F to degrees Celsius.

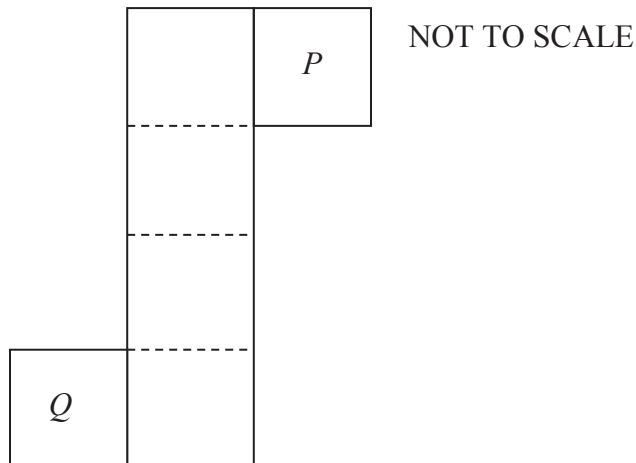
Answer (b) $^{\circ}\text{C}$ [1]

15 The diagram shows the net of a solid.

Faces P and Q are squares.

The sides of P and Q are 4 cm long.

The width of the rectangle is 5 cm.



(a) Write down the name of the solid.

Answer (a) [1]

(b) (i) Find the area of square P .

Answer (b)(i) cm^2 [1]

(ii) Hence or otherwise find the total surface area of the solid.

Answer (b)(ii) cm^2 [2]

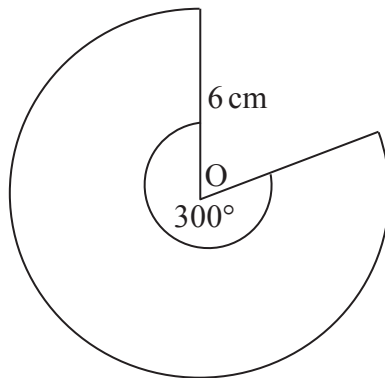
(c) Calculate the volume of the solid.

Answer (c) cm^3 [2]

16 The diagram shows a sector of radius 6 cm.

The sector angle is 300° .

For π use 3.142.



NOT TO SCALE

(a) Write the fraction of the circle that was removed.

Answer (a) [1]

(b) Find the length of the major arc.

Answer (b) cm [2]

(c) Find the perimeter of the sector.

Answer (c) cm [1]

17 The table shows the favourite colours of 60 learners in a Form 1 class.

| Colour | Yellow | Red | Blue | Black | Green |
|-----------|--------|-----|------|-------|-------|
| Frequency | 15 | 5 | 12 | 20 | 8 |

(a) A learner is chosen at random from the class.

Find the probability that the favourite colour of the learner is

(i) Red or Yellow,

Answer (a)(i) [2]

(ii) not Green.

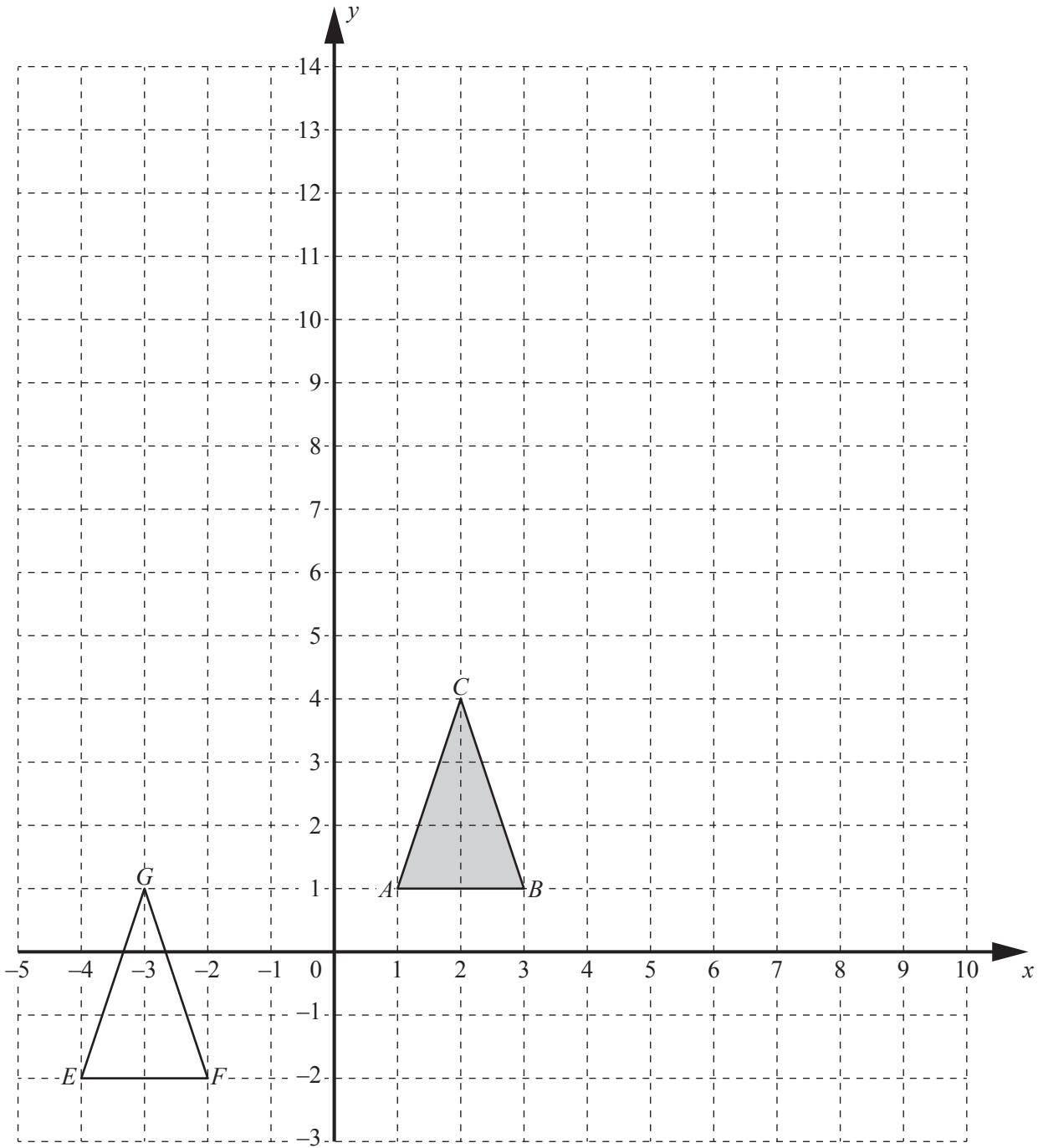
Answer (a)(ii) [2]

(b) A pie chart is to be drawn to represent the above information.

Calculate the sector angle that represents the colour blue.

Answer (b)° [2]

18 The diagram shows triangles ABC and EFG .



(a) Describe fully, the **single** transformation that maps triangle ABC onto EFG .

Answer (a) [2]

(b) Draw triangle PQR , the image of triangle ABC after an enlargement with scale factor 3 about $(0,0)$. [3]

19 Triangle XYZ is such that $XY = 9$ cm, $YZ = 7$ cm and $XZ = 5$ cm.

(a) Using a ruler and a pair of compasses only, construct triangle XYZ accurately.

[3]

(b) Measure and write down the size of angle XZY .

Answer (b)° [1]
