Centre Number	Candidate Number	Candidate Name

NAMIBIA SENIOR SECONDARY CERTIFICATE

MATHEMATICS ORDINARY LEVEL

4324/1

PAPER 1 (Core)

1 hour 15 minutes

Marks 60

2019

Additional Material: Geometrical instruments
Non-programmable calculator
Tracing paper (optional)

INSTRUCTIONS AND INFORMATION TO CANDIDATES

- Candidates answer on the Question Paper in the spaces provided.
- Write your Centre Number, Candidate Number and Name in the spaces at the top of this page.
- Write in dark blue or black pen.
- You may use a soft pencil for any diagrams or graphs.
- Do not use correction fluid.
- Do not write in the margin *For Examiner's Use*.

- Answer **all** questions.

- If working is needed for any question it must be shown below, or where working is indicated.
- The number of marks is given in brackets [ ] at the end of each question or part question.
- Non-programmable calculators may 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 for angle sizes to **one** decimal place.
- For π, either use your calculator value, or use 3.142.

ORDINARY LEVEL
CORE

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Marker	
Checker	

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Republic of Namibia

MINISTRY OF EDUCATION, ARTS AND CULTURE

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1 Calculate $(\sqrt{5} + \sqrt{47})^2$.

Answer ..... [1]

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2 Write 48.9855 correct to two decimal places.

Answer ..... [1]

---

3 120, 121, 123, 124, 125

From the list of numbers, write down a

(a) square number,

Answer **(a)** ..... [1]

(b) common factor of 375 and 500,

Answer **(b)** ..... [1]

(c) a multiple of 41.

Answer **(c)** ..... [1]

---

4 Write 0.6 km in metres.

Answer ..... m [1]

---

5 Write down the missing number in the following sequences.

(a) 48.2; 45.5; 42.8; 40.1; .....; 34.7 [1]

(b) 1; 9; 25; 49; .....; 121 [1]

---

6 Robbie bought a pack of tea bags costing N$ 14.95 and a 750 ml bottle of cooking oil costing N$ 18.50. He paid with a N$ 50 note.

Calculate his change.

Answer N$ ..... [1]

---

7 Elizabeth ran a race in 15.8 seconds, correct to one decimal place.
Write down the lower bound of the time (t) in seconds, that Elizabeth took to run the race.

Answer ..... seconds [1]

---

8 Use >, < or = to make the statement true.

(a) 3.12 ..... 3.1222,

(b) −4.5 ..... −5.4,

(c) $1\frac{1}{3}$ ..... $\frac{4}{3}$. [3]

---

9 A family arrives home at 17:20 after a journey that took 7 hours 45 minutes.
At what time did their journey start?

Answer ..... [2]

---

10 Mrs Kazonga invested N$ 4 200 at a rate of 5% per year compound interest.

Calculate the total amount Mrs Kazonga has after 2 years.

Answer N$ ..... [2]

---

11 On a winter day in city B, the temperature at noon was 5°C. At midnight the temperature was −4 °C.
Find the difference between these two temperatures.

Answer ..... °C [1]

---

12 One day, 62 750 people attended a Confederation Cup match.
Another day, 85 420 people attended the match.
Calculate the percentage increase of the attendance between the two matches.

Answer ..... % [3]

---

13 To make a cake, the following ingredients are needed.

$\frac{1}{100}$ kg baking powder

$\frac{1}{2}$ kg flour

$\frac{1}{4}$ kg sugar

$\frac{3}{4}$ kg butter

(a) Find the total mass of flour, butter, baking powder and sugar.

Answer **(a)** ..... kg [1]

(b) What fraction of the total mass is flour? Give your answer in its lowest terms.

Answer **(b)** ..... [2]

---

14 Simplify

(a) $\frac{y^3}{y^5}$,

Answer **(a)** ..... [1]

(b) $8f - 2e + 10f - 12e$,

Answer **(b)** ..... [2]

(c) Multiply out

$4w^2 (5w - 4w^3y)$.

Answer **(c)** ..... [2]

---

15 Solve the equation

$(x - 7)(2x - 1) = 0$.

Answer: x = ... or x = ... [2]

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16 Find the value of 8^{-1}. Write your answer as a common fraction.

Answer..... [1]

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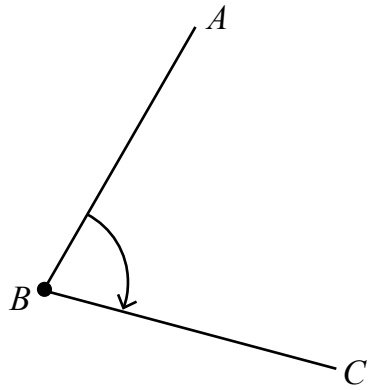
17 Measure angle ABC.



Answer..... °C [1]

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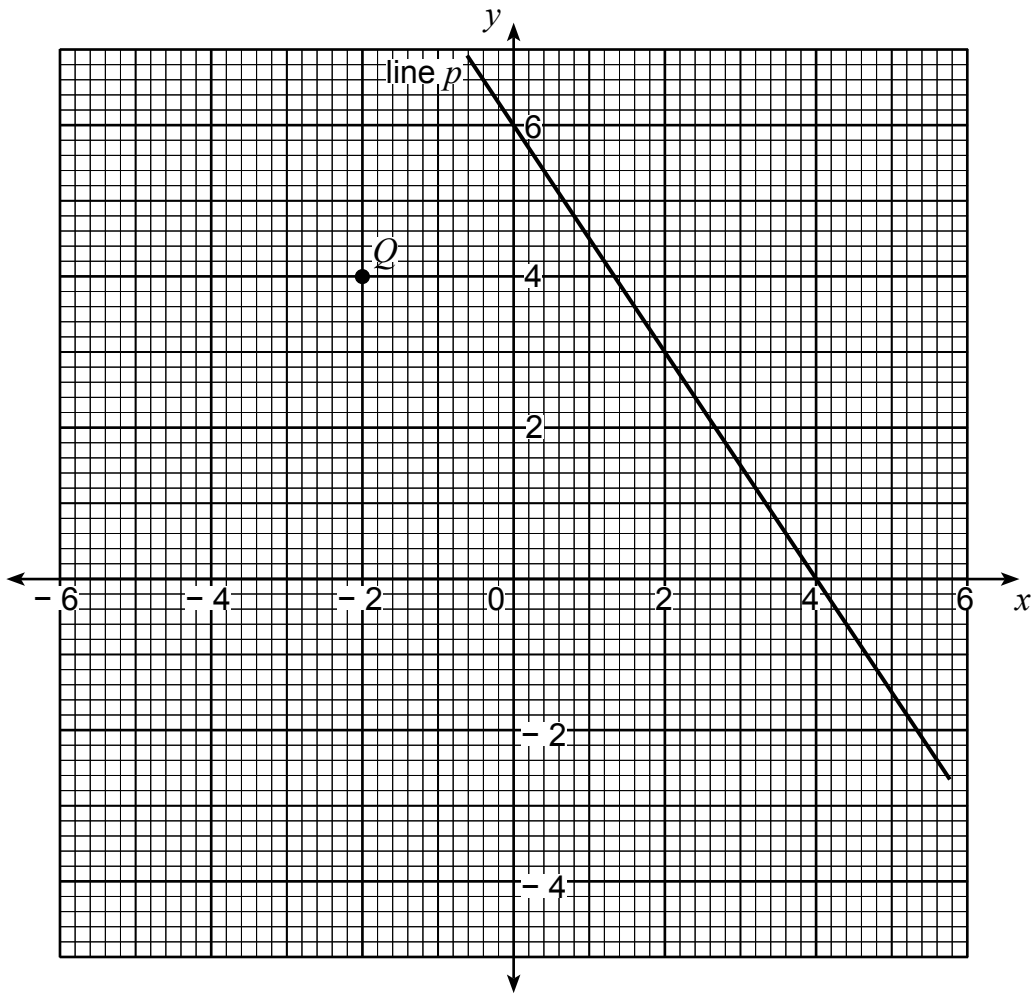
18



(a) Write down the coordinates of point Q.

Answer **(a)** (..... , ...) [1]

(b) Write down the y-intercept of line p.

Answer **(b)** ..... [1]

(c) Calculate the gradient of line p.

Answer **(c)** ..... [2]

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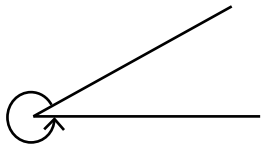
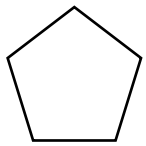
19 Write down the mathematical name to describe each of the following diagrams.

(a)



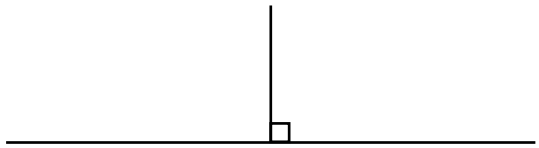
Answer **(a)** ..... [1]

(b)



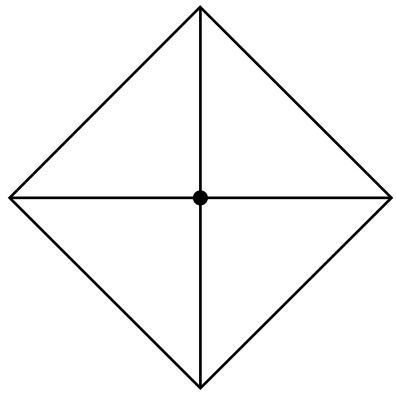
Answer **(b)** ..... [1]

(c)



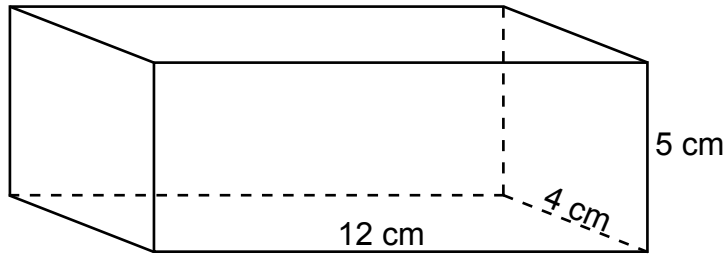
Answer **(c)** ..... [1]

20 Write down the order of rotation of the diagram.



Answer..... [1]

21 Calculate the volume of the cuboid.



Answer..... cm^3 [2]

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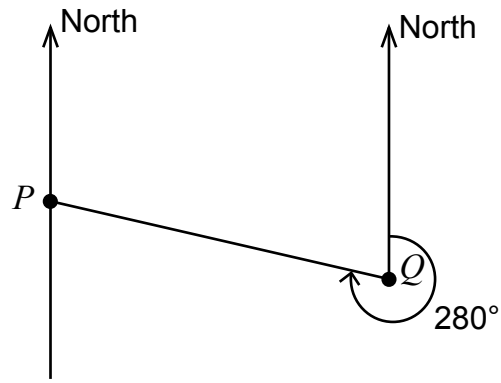
22 The bearing of P from Q is 280°. Calculate the bearing of Q from P.



Answer..... [2]

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23 It is given that $p = \begin{pmatrix} 3 \\ -2 \end{pmatrix}$ and $r = \begin{pmatrix} 5 \\ 6 \end{pmatrix}$.

Find

(a) $p + r$,

Answer **(a)** ..... [1]

(b) $3p$.

Answer **(b)** ..... [1]

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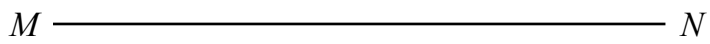
24 Using a compass and a straight edge only, construct the perpendicular bisector of line MN.



[2]

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25 The list shows the height of all the players in a soccer club.

165	170	165	170	171	170	165
169	166	167	168	169	170	166
166	170	168	166	170	170	

(a) Use this list to complete the frequency table below.

Height in cm	Frequency
165	
166	4
167	
168	
169	2
170	
171	1

[2]

(b) A player is chosen at random. Find the probability that the player has a height of

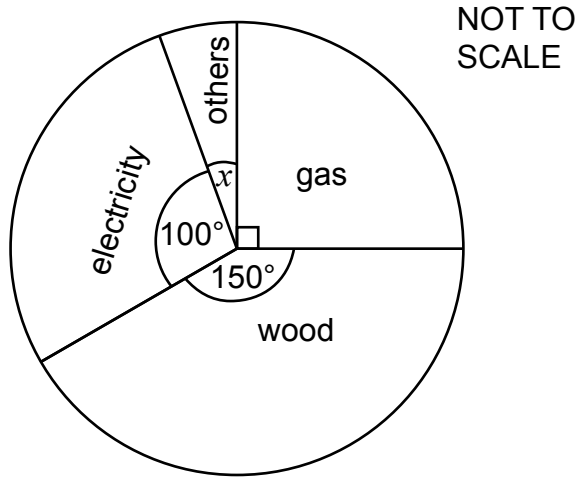
(i) exactly 166 cm,

Answer **(b) (i)**..... [1]

(ii) at least 165 cm.

Answer **(b) (ii)**..... [1]

26 The sources of energy used by people for cooking are represented in the pie chart below.



(a) Calculate the value of x.

Answer **(a)** x = ...° [1]

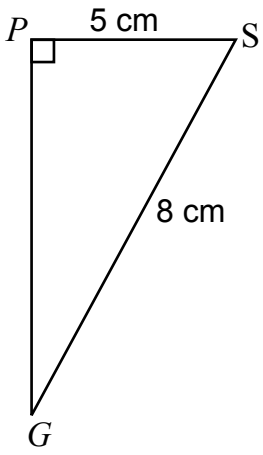
(b) Write down the fraction of people that use wood.
Give your answer in its simplest form.

Answer **(b)** ..... [2]

(c) 270 people use gas to cook.
Find the number of people who use electricity to cook.

Answer **(c)** ..... people [2]

27 Calculate the size of angle SGP.



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Answer ..... ° [2]