Centre Number	Candidate Number	Candidate Name

NAMIBIA SENIOR SECONDARY CERTIFICATE

MATHEMATICS ORDINARY LEVEL

4324/1

PAPER 1 (Core)

1 hour 15 minutes

Marks 60

2017

Additional Materials: 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.

For Examiner's Use

Marker	
Checker	

This document consists of **12** printed pages.

Republic of Namibia

MINISTRY OF EDUCATION, ARTS AND CULTURE

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1 Insert brackets to make the following statement true.

$$-4 + 3 \times -3 = 3$$ [1]

2 Work out $8 \div 200$. Give your answer in standard form.

Answer ..... [2]

3 Write 0.004572 correct to two significant figures.

Answer ..... [1]

4 Place <, > or = between the following statements to make them true.

(a) $\frac{1}{3}$ ..... 33.3% [1]

(b) 0.75 ..... $\frac{3}{4}$ [1]

(c) 9.9 ..... 99% [1]

5 Fill in the missing number to make the following fractions equivalent.

$$\frac{\ldots\ldots}{13} = \frac{54}{78}$$ [1]

6 The table below shows temperatures recorded at different towns during a particular winter day, at the same time.

Town	Temperature (°C)
A	-10
B	-3
C	-1
D	-5

(a) Which town recorded the highest temperature?

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

(b) Find the difference between the highest and the lowest temperatures.

Answer **(b)** ..... °C [1]

7 2, 121, $\sqrt{5}$.

From the list of numbers above, write down

(a) an irrational number,

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

(b) a prime number.

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

---

8 Michaela changes N$13 750 into US$ when the exchange rate is

US$1 = N$12.9044.

Calculate the amount she received. Give your answer correct to 2 decimal places.

Answer US$..... [2]

---

9 **(a)** Write 40 minutes as a fraction of one hour in its simplest form.

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

(b) Increase 27 in the ratio 3 : 5.

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

---

10 Charmaine invests N$750 at a rate of 5% per year simple interest.

Calculate the interest she earns after 3 years.

Answer N$ ..... [2]

---

11 The distance, d kilometres, between Okahandja and Windhoek is 70 km to the nearest 10 km.

Complete the statement about d.

Answer ..... $\leq d <$ ..... [2]

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12 Andreas scored 25 marks out of 40 in a Mathematics test.

(a) Calculate the percentage Andreas obtained in the test.

Answer **(a)** ..... % [2]

(b) In the next test, which was also marked out of 40, he scored 80%.
How many **more** marks did he score?

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

---

13 1, 12, 23, ...

In the sequence above, write down the 6th term.

Answer ..... [1]

---

14 Simplify

(a) $6a \times 2a$,

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

(b) $18b^9 \div 3b^4$.

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

For Examiner's Use

15 Monde thinks of a number. When she doubles the number and subtracts 3, the answer is 7.

(a) If the number she thinks of is x, write down an equation in terms of x for the result.

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

(b) Solve the equation in part **(a)** to find the number.

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

---

16 Solve the following simultaneous equations.

$3m - 4n = 7$,

$5m + 2n = 16$.

Answer m = ...

n = ... [3]

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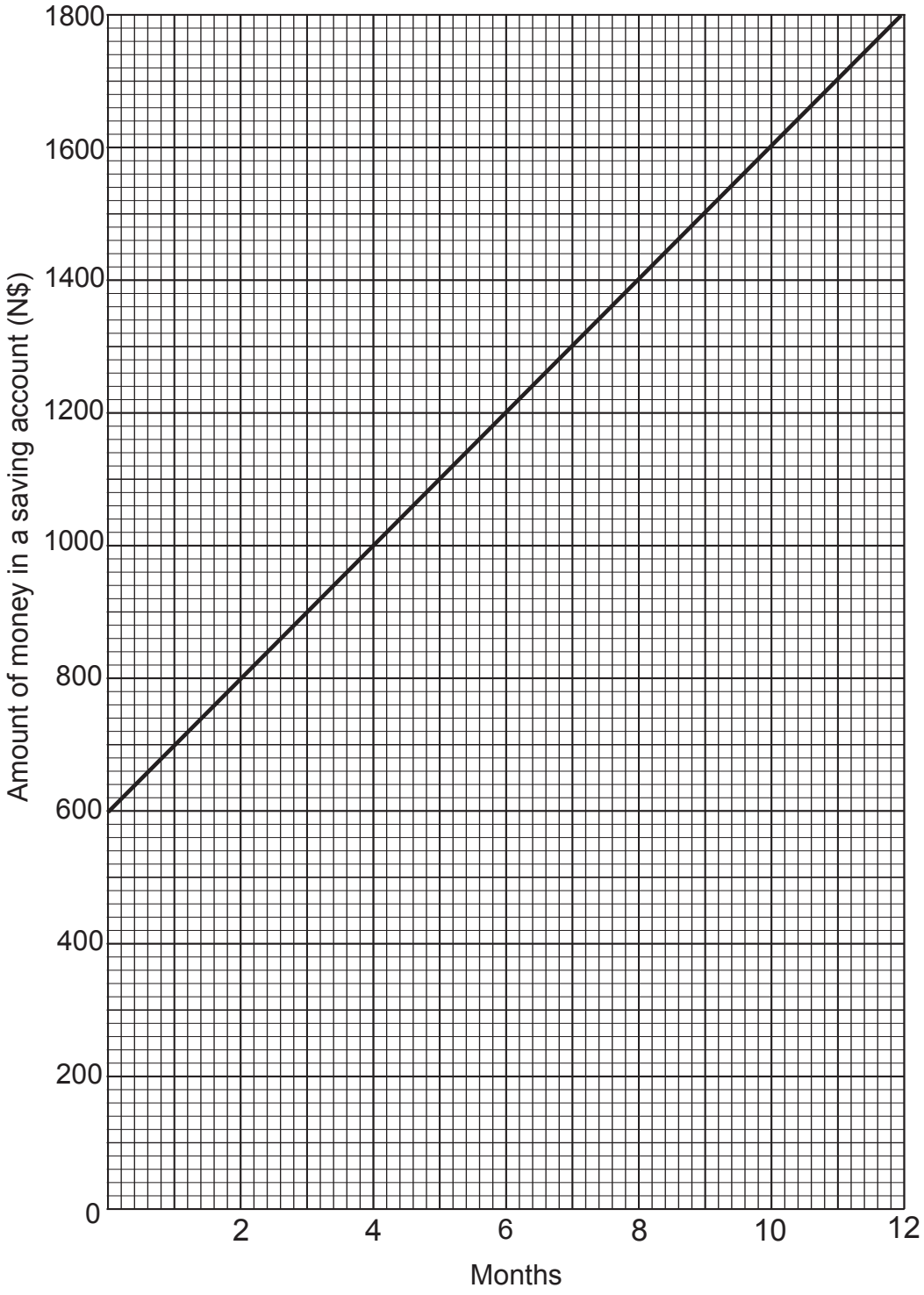
17 The graph shows Angala's savings account balance for the year.



Use the graph to answer the following questions.

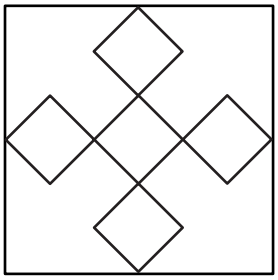
(a) Write down the amount Angala started with in his savings account.

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

(b) In which month was Angala's savings account balance N$1 300?

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

18



For the diagram above, write down

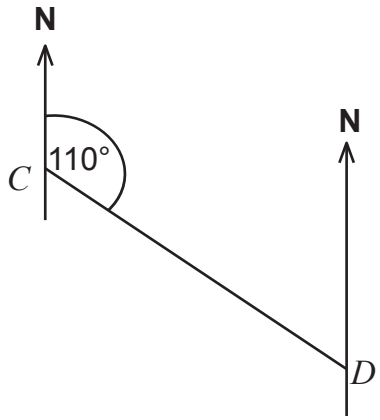
(a) the number of line(s) of symmetry,

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

(b) the order of rotational symmetry.

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

19



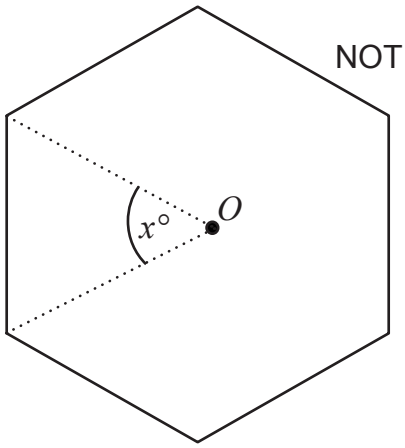
NOT TO SCALE

The bearing of D from C is 110°.

Work out the bearing of C from D.

Answer ..... ° [1]

20 **(a)** The diagram shows a regular hexagon, centre O.



Find the value of x.

Answer **(a)** x = ...° [2]

(b) The exterior angle of **another** polygon is 30°.

Calculate the number of sides of this polygon.

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

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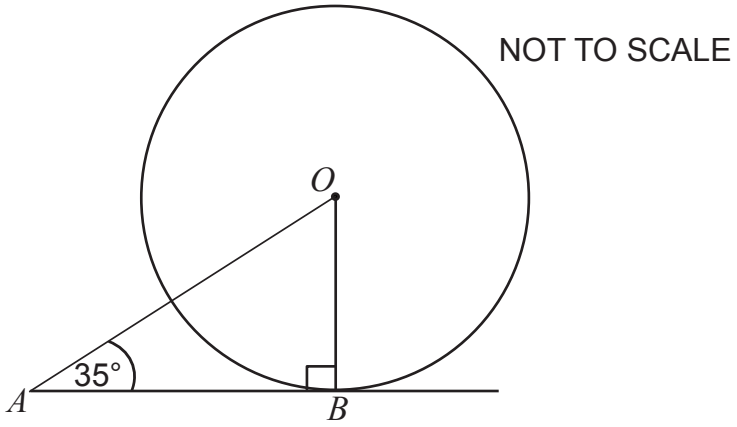
21 The diagram shows a circle, centre O and triangle OAB. The line AB is a tangent to the circle at the point B.



(a) **Obtuse, Acute, Reflex** are words used to describe angles.
Choose **one** word from above to describe angle OAB.

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

(b) State a reason why angle ABO is 90°.

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

(c) Calculate the size of angle AOB.

Answer**(c)** .....° [1]

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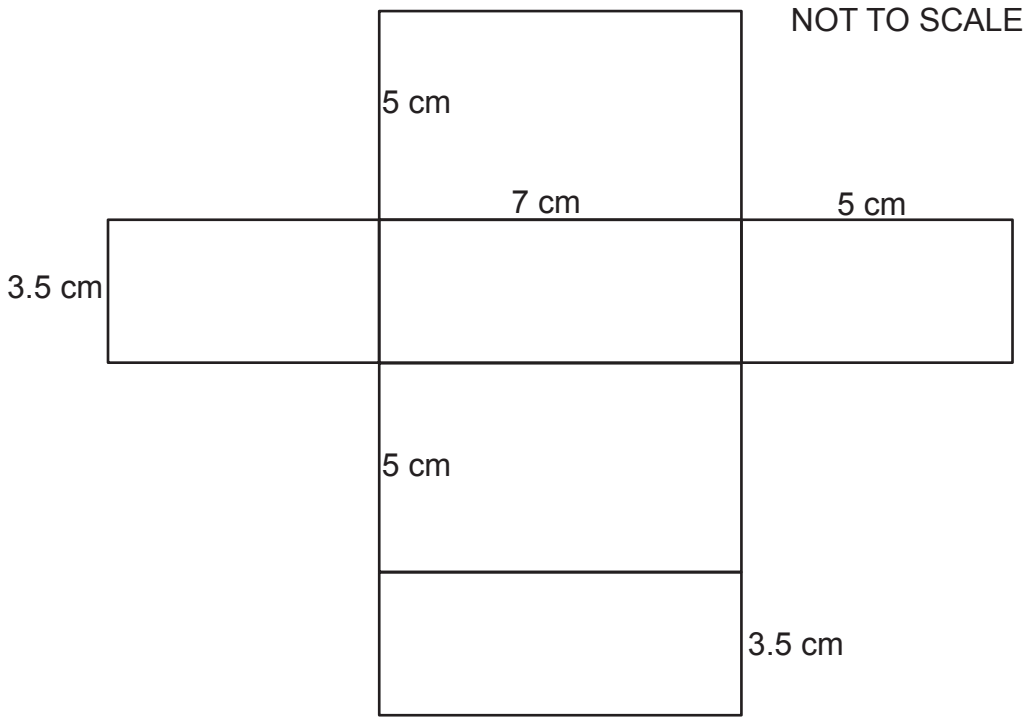
22 The diagram shows the net of a solid with the dimensions of length = 7 cm, width = 3.5 cm and height = 5 cm.



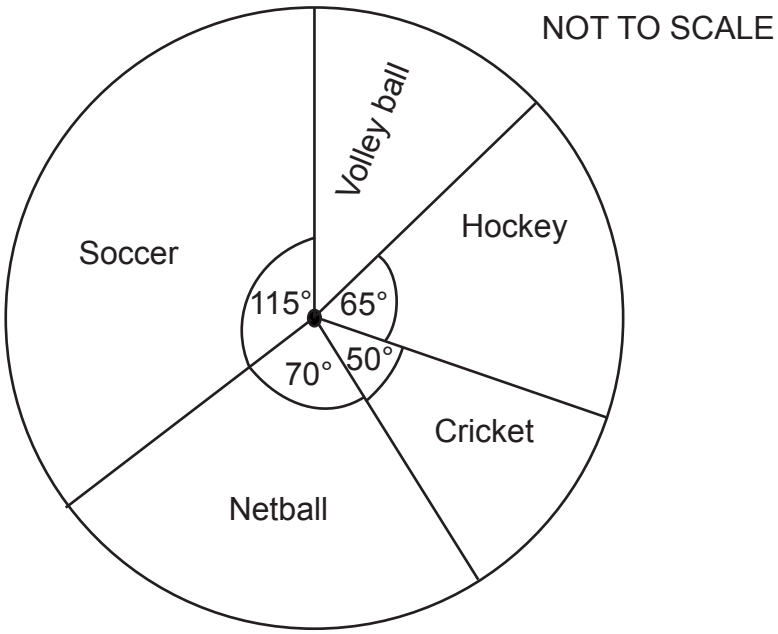
(a) Write down the special name for the solid.

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

(b) Calculate the surface area of the solid.

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

23 In a survey, a number of people chose their favourite sport. The results are shown in the pie chart below.



(a) Calculate the size of sector angle for volleyball.

Answer **(a)** .....° [2]

(b) The number of people who chose cricket is 120.

Calculate the number of people who chose soccer.

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

---

24 In a parking area, the probability of finding a Corolla car is $\frac{3}{8}$. There are 184 cars in the parking area.

Calculate the number of cars in a parking area which are **not** Corolla cars.

Answer..... [2]

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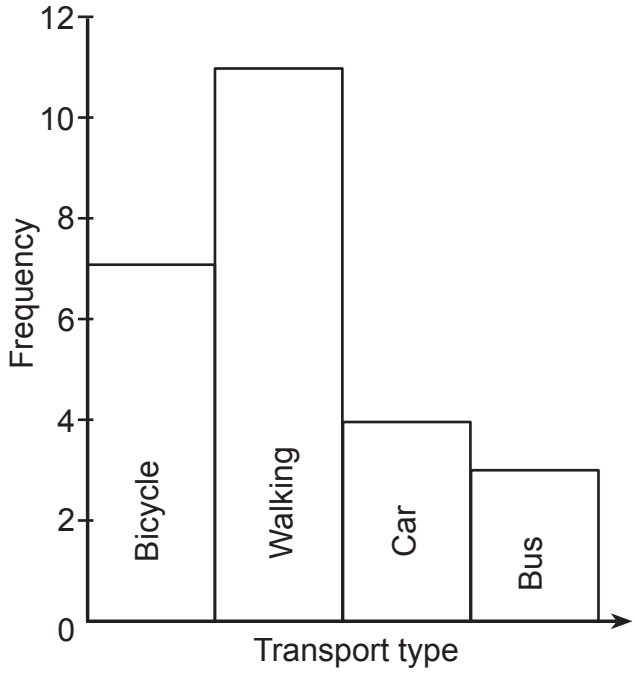
25 The bar chart below shows the different types of transport used by 25 learners coming to school.



(a) Name the type of transport which represents the mode.

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

(b) Use the bar chart to complete the frequency table.

Transport mode	Bicycle	Walking	Car	Bus
Frequency				3

[2]

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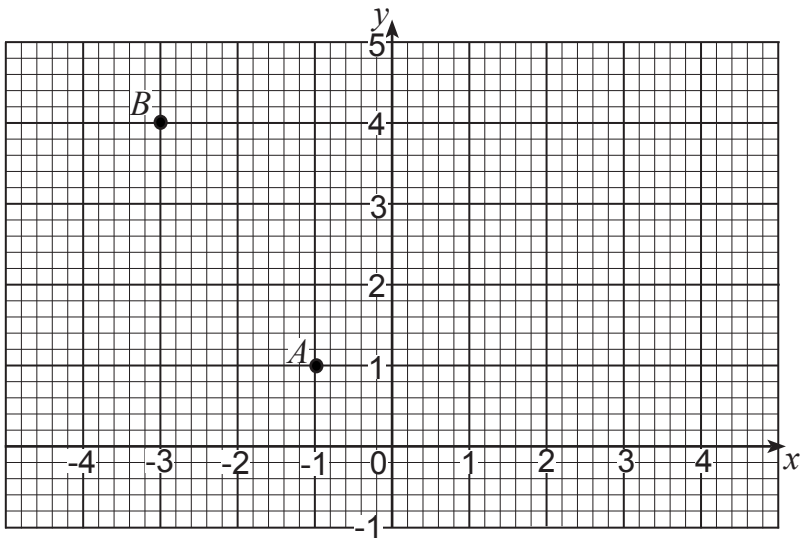
26



Point $A(-1,1)$ and point B $(-3,4)$ are marked on the grid above.

(a) Write $\overrightarrow{BA}$ as a column vector.

Answer **(a)** $\overrightarrow{BA}$ = $\begin{pmatrix} \quad \\ \quad \end{pmatrix}$ [1]

(b) C is a point such that $\overrightarrow{BC} = \begin{pmatrix} 4 \\ -1 \end{pmatrix}$, write down the co-ordinates of point C.

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