## Eswatini Primary Certificate

CANDIDATE
NAME

CENTRE
NUMBER

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## CANDIDATE

 NUMBER|  |  |  |  |
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## MATHEMATICS

Paper 2
October/November 2020
2 hours
Candidates answer on the Question Paper
Additional Materials: Tracing paper
Geometrical instruments

## 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, tables, paper clips, highlighters, glue or correction fluid.

Answer all questions in this paper.
All working should be clearly shown below each question.
Marks will be given for working which shows that you know how to solve the problem even if you get the wrong answer.

The number of marks is given in brackets [ ] at the end of each question or part question.

Electronic calculators should not be used.
The total of the marks for this paper is 100.

| Examiner's |  |
| :---: | :--- |
| Use |  |
| 1 |  |
| 2 |  |
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| 12 |  |
| 13 |  |
| 14 |  |
| Total |  |

This document consists of $\mathbf{2 0}$ printed pages.

1 (a) Write the number shown in the spike abacus below in numeral form.


Answer (a).
(b) A jewellery artisan is making wedding rings.

Each ring requires a piece of wire that is 4 cm long. He buys the wire in 150 cm rolls.

Calculate the number of rings he makes from each roll.

2 (a) Write >, < or = to make the following statements true.
(i) 0.318 $\qquad$ 0.4
Answer (a)(i)
(ii) 2 weeks $\qquad$ 12 days

Answer (b)(ii)
(iii) $\frac{3}{5} \mathrm{~km}$ $\qquad$ 600 m
Answer (a)(iii).
(b) Complete the number sentence $56+35=7$ ( $\qquad$ $+$ $\qquad$ ).

3 The diagram shows shape $\mathbf{A}$ made of 1 cm by 1 cm squares.

(a) Write the name of a shape with the same number of sides as shape $\mathbf{A}$.

Answer (a).
For shape A calculate the;
(b) Perimeter

Answer (b).
(c) Area

4 (a) The cost of 30 bags of rice is E2 700. How much do 13 bags cost?

Answer (a)
(b) Calculate the remainder when 1598 is divided by 68 .

5 (a) Construct angle $G H I=60^{\circ}$, using a ruler, a pair of compass and a pencil only.
$H I$ has already been drawn for you.
NB. do not use a protractor.

## $H \longrightarrow I$

(b) Bisect the side $H I$.

6 The table below shows the expenditure of a certain school for 2018.

| Item | Money(E) |
| :--- | :--- |
| Electricity | E52 000 |
| Water | E28 000 |
| Security | E34 800 |
| Maintenance | E7 100 |
| Teaching materials | E20 400 |
| Sports | E13 000 |

(a) Write the item on which the school spent less amount of money.

Answer (a)
(b) The school spent the same amount of money each month for Security in the year.

Work out the amount of money the school spent on Security each month.

Answer (b)
(c) Calculate the amount spent by the school on Electricity and Teaching materials altogether.
(d) In 2019 the school spent 5\% more money on water than in 2018.

Work out the amount of money the school spent on water in 2019.

7 (a) In trying to keep healthy, Busi and Banele recorded the amount of water they drank over the weekend.
Busi drank $\frac{3}{4}$ times as much as Banele.
Banele drank 8 litres.
How much water did Busi drink?

Answer (a).
(b) The following data shows the marks obtained by 9 learners in a classwork.

$$
9, \quad 6, \quad 5, \quad 7, \quad 6, \quad 10, \quad 4, \quad 6, \quad 8
$$

(i) Calculate the difference between the lowest and the highest mark.
Answer (b)(i).
(ii) State the mode of the data.

8 The diagram shows a circle with centre $O$.
The points $M, N, P$, and $Q$ are on the circumference of the circle. The radius of the circle is 5 cm .


## NOT TO SCALE

(a) Which line represents the diameter of the circle?

Answer (a)
(b) Calculate the circumference of the circle.
(c) In the diagram, name any;
(i) Right-angled triangle.

> Answer (c)(i).
[1]
(ii) Isosceles triangle.

> Answer (c)(ii).
(iii) Quadrilateral

> Answer (c)(iii).

9 (a) Alice buys a school shirt and a jersey.
The price of the shirt is E79. 45.
The price of the jersey is E189.76.
Calculate the cost of the shirt and the jersey.
(b) A contractor builds a wall that is 3.5 m high.

The contractor uses a type of brick which has a height of 25 cm . In building the wall, each brick is put on top of each other.

How many of these bricks are needed for this wall?

10 Study the pattern below.



The same information is shown in the table.

| Position | Number of black squares | Number of white squares |
| :--- | :--- | :--- |
| 1 | 2 | 2 |
| 2 | 3 | 6 |
| 3 | 4 | 12 |
| 4 | $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$ |  |

(a) Complete the pattern for the $4^{\text {th }}$ position.
Answer (a) Number of black squares................................[1]

Number of white squares
(b) How many white squares would be there in the $7^{\text {th }}$ position?
Answer (b).
(c) Write a rule for finding the number of white squares.

Answer (c)

11 Mrs Magagula cultivates maize for commercial use in a $2 \frac{1}{5}$ hectares of land.
(a) Change $2 \frac{1}{5}$ hectares into $\mathrm{m}^{2}$.

> Answer (a).
(b) Mrs Magagula got 10 tonnes of maize as harvest.

She sold all her harvest to the local milling company at E4 300 per tonne.

Calculate her income from selling all her harvest.

Answer (b). [2]
(c) Mrs Magagula spent E28 000 as cost for producing her harvest. Calculate her percentage profit.

12 James travelled from Mbabane to Pretoria.
He travelled for 4 hours 36 minutes before stopping for lunch.
He stopped 43 minutes for lunch.
He then travelled for 1 hour 28 minutes in the afternoon to reach Pretoria.
(a) find the total time of James's journey from Mbabane to Pretoria.

Answer (a) [3]
(b) James stopped for his lunch break at 12.15 pm .

At what time did James start travelling in the morning?

13 Vusi bought 29 boxes of apples.
There were 82 apples in each box.
(a) How many apples did Vusi buy?

Answer (a)
(b) Vusi found that 3 apples were rotten.

He packed the remaining apples into packets of 5 apples each.
Find the number of packets he got.

14 A charity organisation had 2 fundraising concerts. In the first concert, the organisation raised E12 500.
In the second concert, the organisation raised E18 700.
The charity organisation shared the total money raised in the 2 concerts equally among 12 families.

Calculate the amount of money given to each family.

15 The following points $W(5,2), X(7,4)$ and $Y(5,8)$ are three vertices of the kite WXYZ.

The coordinates of point $Z$ are not given.
(a) On the coordinate diagram, plot the points $W, X$, and $Y$.

(b) Join $W$ to $X$ and $X$ to $Y$.
(c) Plot the point $Z$ on the diagram to complete the kite $W X Y Z$.
(d) Name the angle that is opposite angle $X Y Z$.

Answer (d)
(e) Rotate kite WXYZ through a $\frac{1}{4}$ turn anti-clockwise about $Y$. Label the image $W_{l} X_{l} Y_{l} Z_{l}$.

16 A nurse at the local clinic asked a group of patients the methods they use for preventing Human Immune Deficiency Virus (HIV) infection.

The nurse showed the information in the table.

| Method of preventing HIV infection | Number of patients |
| :--- | :--- |
| Abstaining | 12 |
| Using condom | 24 |
| Being faithful to your partner | 8 |
| Avoid blood contact | 16 |

(a) Work out the total number of patients.

Answer (a)
(b) Name the method used by the least number of patients.

> Answer (b)
(c) Calculate the percentage of patients who use condoms.

> Answer (c)
(d) Write in its simplest form the fraction of patients who avoid blood contact.

> Answer (d).

