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Question 1

Choose the correct letter.

1.1 $(0,1)^3 =$

- A 0,3
C 0,001

- B 0,01
D 0,27

1.2 $t \cdot t^3 \cdot t^5 =$

- A $3t^9$
C t^8

- B t^9
D $3t^8$

1.3 In the number sequence 1;2;4;8;..... $T_8 =$

- A 128
C 8^8

- B 2^8
D 32

1.4 x is a rational number if $x =$

- A π
C $\sqrt[3]{-1}$

- B $\sqrt{-1}$
D $-1 \div 0$

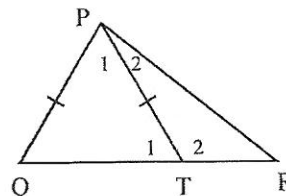
1.5 $-4t^4 \div 2t^2 - 2t^2 =$

- A undefined number
C $-4t^2$

- B 0
D $4t^2$

1.6 If $\angle Q = 56^\circ$, $\angle P_2 = 24^\circ$ and $PQ = PT$, $\angle R$ will be =

- A 24°
C 10°
- B 32°
D 64°



1.7 $\frac{x}{3} + \frac{x}{4} =$

- A $\frac{2x}{7}$
C 1

- B $\frac{x^2}{12}$
D $\frac{7x}{12}$

1.8 If $3(x - 3) = 6$ then $x =$

- A 1
C 5

- B -1
D -5

1.9 0,075 expressed as a fraction is :

- A $\frac{3}{40}$
C $\frac{3}{400}$

- B $\frac{3}{4}$
D $\frac{30}{4}$

1.10 R400 increased in the ratio 8:5 =

- A R1940
C R2500

- B R700
D R640

1.11 If $2^{2n+1} = 32$, then $n =$

- A 3
C 1,5

- B 2**
D 1

1.12 The % loss if a coat was bought for R400 and sold for R350 is :

- A 14,29%
C 12,5%

- B 25%**
D 10%

1.13 The size of each interior angle of a regular pentagon is:

- A 50°
C 108°

- B 120°**
D 90°

1.14 0,000452 written in scientific notation is:

- A $4,52 \times 10^5$
C $4,52 \times 10^{-4}$

- B $0,452 \times 10^{-5}$**
D $0,452 \times 10^{-4}$

1.15 If a die is cast, the sample space is, $S = \{1; 2; 3; 4; 5; 6\}$. The probability that a number which is a multiple of 2 is cast is:

- A $\frac{1}{3}$
C $\frac{2}{5}$

- B $\frac{1}{6}$**
D $\frac{1}{2}$

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Question 2

2.1 Correct these incorrect statements (correct the RHside):

2.1.1 $4 \div 0 = 0$

2.1.2 $x + y = t$ means $x = y - t$

[2x1 = 2]

2.2 Write the numbers 8,5 ; 0,85 ; -5,8 ; 0,58 and 0,058 in ascending order of size.

[2]

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Question 3

3.1 Simplify without the use of a calculator and show all calculations:

3.1.1 $-1 - (-3)(-2) - 2$

[2]

3.1.2 $\sqrt{9x^2 + 16x^2}$

[2]

3.1.3 $\sqrt[3]{7^3 \times 2^6}$

[2]

3.2 3.2.1 Add the additive inverse of 5 to the product of -1 and -4.

[2]

3.2.2 From the sum of 5, -6 and -4 subtract $(-3)^2$.

[3]

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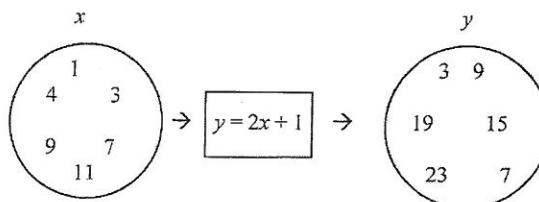
Question 4

4.1 Write down the next term in the following relationship.

8; 3; -2,;

[1]

4.2 Rewrite the following flow diagram in table form.



[2]

4.3 Determine the relationship between x and y :

x	1	2	3	5
y	6	10	14	22

[3]

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Question 5

5 Calculate WITHOUT the use of a calculator and show all your calculations:

5.1 $\left(1 + \frac{1}{4}\right) \div \frac{3}{4} =$ [3]

5.2 $\frac{4}{27}$ of $\frac{9}{16} - \frac{1}{8} =$ [2]

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Question 6

6.1 Calculate : 20% of R65 [1]

6.2 Calculate the amount John will receive if he invests R1500 at 6% p.a. simple interest for 3 years. [3]

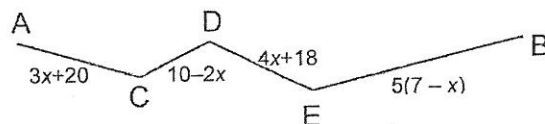
6.3 Decrease 68,5 kg in the ratio 3:5. [2]

6.4 Share R938 between Alex and Peter in the ratio 3:4. [3]

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Question 7

7.1 Calculate the distance from A to B.



[3]

7.2 Simplify:

7.2.1 $-(-4x)^3 - x^2 \cdot x$ [3]

7.2.2 $4x^2y^3(2x-1) - 2x^3y^2(4y)$ [3]

7.2.3 $\frac{4x^2y + 5x^2y}{3xy^2}$ [2]

7.3 Solve the following equations (Solve for x):

7.3.1 $7 + x = -2$ [1]

7.3.2 $x + 3 = 2x - 5$ [3]

7.4 5 times a number exceeds 3 times the number by 8. Calculate the number. [2]

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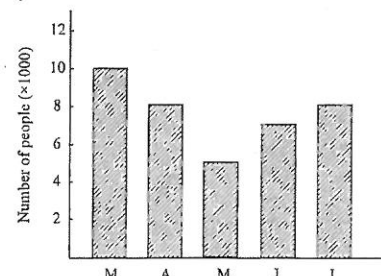
Question 8

8.1 The bar graph shows the number of people who watched Chippa United's matches from March this year.

8.1.1 During which month was the attendance the lowest? [1]

8.1.2 Altogether how many people attended matches from March until July? [1]

8.1.3 What was the average attendance per month? [2]



8.2	The Maths marks, out of 50, of the learners in a Grade 8 class were:	16	26	23	39	38	29	33	27	37
		19	23	26	41	34	42	36	46	38
		43	35	26	40	34	45	13		

8.2.1 Draw a stem-and-leaf diagram to illustrate the marks. [3]

Determine :

8.2.2 the modal mark. [1]

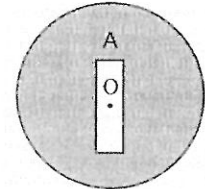
8.2.3 the median mark. [1]

8.2.4 the mean mark correct to 1 decimal place. [2]

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Question 9

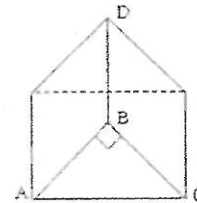
9.1 The diagram shows a circular cricket field with centre O and radius = 70m. The batting pitch is rectangular with measurements 22m by 2m and is covered by finer grass than the outfield. Give answers correct to the nearest metre.



9.1.1 At the start of every practice, the team have to run around the field 6 times. How far must each player run? [3]

9.1.2 How many square metres of grass was planted to cover the field, excluding the batting pitch? [4]

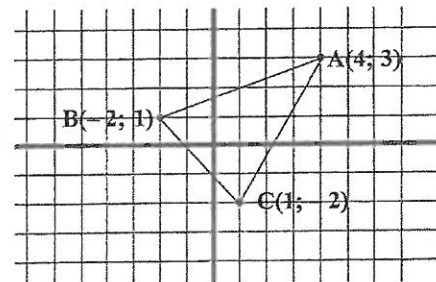
9.2 AB = 4cm ; BC = 3cm and BD = 15cm



9.2.1 Determine the length of AC. [2]

9.2.2 Calculate the total surface area of the prism. [3]

9.3 A(4;3) , B(-2;1) and C(1;-2)
Write down the co-ordinates of:



9.3.1 A' after A is reflected in the Y-axis.

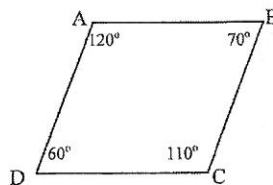
9.3.2 B', the image of B, under the translation (x + 1; y - 4).

9.3.3 C', if C is rotated 180° about the origin. [3]

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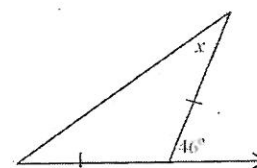
Question 10

10.1 Which lines are NOT parallel?



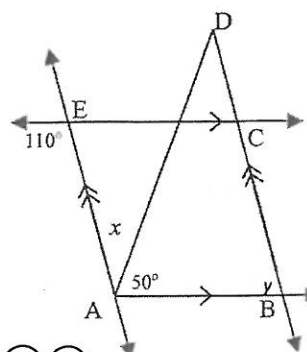
[1]

10.2 Calculate the value of x.



[2]

10.3 Calculate the value of x and y, with reasons.



[4]

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TOTAL : [[100]]

