CHRIST HIGH SCHOOL PLOT 5, CHS STREET, KM 32, ABUJA-KEFFI ROAD UKE, NASARAWA STATE

JS 3 MATHEMATICS (SECTION A & B) SECOND TERM EXAMINATION 2024/2025 ACADEMIC SESSION

SUBJECT: MATHEMATICS
CLASS: JS 3
TIME: 3 Hours 30 Mins

NAME……

CANDIDATE'S ADMISSION NO.

INSTRUCTION

Write your name and number in the space provided on your answer booklet.

The section A (objective) & B (theory)

Use **HB pencil** throughout and shade properly for the objective test and write your answer in blue or black ink in your answer booklet for the theory.

Think carefully before you shade the answer spaces; erase completely any answer you wish to change.

There are three papers **(paper I, II & III)**

Answer all the questions in all the papers

Now answer all the following questions in paper I.

FOR EXAMINER'S USE	
Total Score:	+

(2024 PAST QUESTION)

PAPER I (60 marks)

1. Express 367900 in standard form.

A. 3.679×10^4

B. 3.679×10^5

C. 3.679×10^6

D. 3.679×10^7

E. 3.679×10^8

2. Express 0.0007823 in standard form.

A. 7.823×10^{-8}

B. 7.823×10^{-6}

C. 7.823×10^{-4}

D. 7.823×10^{-3}

E. 7.823×10^{-2}

3. Simplify $\frac{0.012 \times 0.00009}{0..06}$, correct to one significant figure.

A. 1.0×10^{-5}

B. 1.2×10^{-5}

C. 1.5×10^{-5}

D. 1.8×10^{-5}

E. 2.0×10^{-5}

4. Simplify $2\frac{1}{2} + 5$.

A. $\frac{15}{2}$

B. $\frac{7}{2}$

C. $\frac{5}{2}$

D. $\frac{3}{2}$

E. $\frac{1}{2}$

5. Simplify $5\frac{2}{3} - 3\frac{1}{4}$.

A. $\frac{29}{12}$

B. $\frac{7}{12}$

C. $\frac{5}{12}$

D. $\frac{1}{6}$

E. $\frac{1}{12}$

6. Simplify $2\frac{3}{2} \times 1\frac{3}{5} \div 1\frac{2}{5}$.

A. 2

B. 4

C. 6

D. 8

E. 10

7. Simplify $5\frac{1}{4} - \left(1\frac{2}{3} - \frac{1}{2}\right)$.

A. $2\frac{1}{12}$

B. $2\frac{1}{6}$

C. $4\frac{1}{12}$

D. $4\frac{1}{6}$

E. $6\frac{1}{12}$

8. Convert 1.625 into a mixed fraction.

A. $1\frac{1}{8}$

B. $1\frac{1}{4}$

C. $1\frac{3}{8}$

D. $1\frac{1}{2}$

E. $1\frac{5}{8}$

9. What is the square of 27?

A. 54

B. 94

C. 429

D. 537

E. 729

10. Find the smallest number by which 60 must be multiplied to be a perfect square.

A. 2

B. 3

C. 5

D. 10

E. 15

11. Divide the L.C.M. of 36,72 and 144 by their H.C.F.

A. 2

B. 4

C. 6

D. 12

E. 36

12. Find the H.C.F. of 18, 40 and 48.

A. 2

B. 3

C. 4

D. 5

E. 6

13. The H.C.F. of 48, x and 88 is 8. What is the value of x?

A. 56

B. 58

C. 63

D. 78

E. 89

14. Express 0.025 in the form of $\frac{a}{b}$ in its lowest form.

A. $\frac{1}{40}$

B. $\frac{1}{20}$

C. $\frac{2}{5}$

D. $\frac{1}{2}$

E. $\frac{3}{4}$

15. Express 15 as percentage of 20.

A. 10.25%

B. 12.13%

C. 40.00%

D. 75.00%

E. 133.33%

16. Find 7.5% of 4 kg 300g, correct to 3 significant figures

A. 225 g

B. 322 g

C. 323 g

D. 325 g

E. 332 g

17. Express 68 as a binary number.

A. 1111111_2

B. 1110011_2

C. 1100001_2

D. 1000100_2

E. 1000001_2

18. Express 144 as a product of prime factors in index form.

A. $2^3 \times 3^3$

B. $2^5 \times 3^2$

C. $2^4 \times 3^2$

D. $3^4 \times 2^2$

E. $3^3 \times 2^2$

19. Convert 111_2 to base 10.

A. 6

B. 7

C. 10

D. 11

E. 13

20. If the simple interest on a certain amount for 2 years at 5% per annum is ₦ 2 400.00, find the principal.

A. ₦ 15 000.00

B. ₦ 24 000.00

C. ₦ 29 000.00

D. ₦ 36 000.00

E. ₦ 48 000.00

21. Subtract 9.65 from 42.5

A. 32.85

B. 30.32

C. 28.24

D. 26.13

E. 24.04

22. Find the simple interest on N15 000.00 deposited for $2\frac{1}{2}$ years at $5\frac{1}{2}\%$ per annum.

A. ₦ 257.81

B. ₦ 515.63

C. ₦ 51031.25

D. ₦ 2062.50

E. ₦ 4125.00

23. Felix bought a car at the rate of ₦ 3 088 144.00. He made cash payment of 32% and paid the remaining through bank transfer. How much was paid through transfer?

A. ₦ 988 206.08

B. ₦ 2 099 937.92

C. ₦ 2099 938.87

D. ₦ 2 099 940.14

E. ₦ 2 099 941.93

24. Estimate the sum of the following amount ; ₦ 10.50, ₦ 5.85, ₦ 125.10, ₦ 16.20, ₦ 15.20.

A. ₦ 171.00

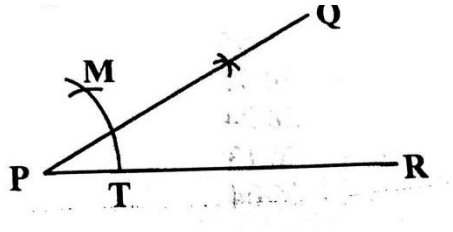
B. ₦ 172.85

C. ₦ 173.00

D. ₦ 175.42

E. ₦ 176.00

25. What is the value of **<QPR** in the figure below?



A. 15^0

B. 30^0

C. 45^0

D. 60^0

E. 90^0

26. The interior angle of a regular polygon is 165^0. How many sides does the polygon have?

A. 10

B. 12

C. 14

D. 22

E. 24

27. If M varies inversely as the square of N, find the formula connecting M and N given that M = 2 and N $= \frac{1}{2}$.

A. $M = 2N^2$

B. $M = 4N^2$

C. $\mathrm{M} = \frac{1}{8N^2}$

D. $\mathrm{M} = \frac{1}{4N^2}$

E. $\mathrm{M} = \frac{1}{2N^2}$

28. Which of the following angles **cannot** be constructed using a ruler and a pair of compasses only?

A. 30^0

B. 60^0

C. 90^0

D. 120^0

E. 140^0

29. Find the sum of the interior angles of a polygon which has 10 sides.

A. $1\,260^0$

B. $1\,440^0$

C. $1\,620^0$

D. $1\,800^0$

E. $1\,980^0$

30. How many triangles can be cut out of a pentagon?

A. 1

B. 2

C. 3

D. 4

E. 5

31. Find the area of a circle with diameter 42 cm. $\left(Take\ \pi = \frac{22}{7}\right)$

A. $50\ cm^2$

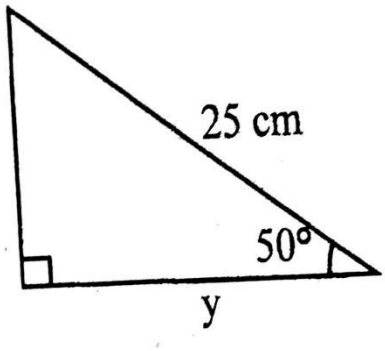
B. $70\ cm^2$

C. $108\ cm^2$

D. $157\ cm^2$

E. $1\,386\ cm^2$

32. Find the value of y in the diagram below, correct to one decimal place.



A. 10.3 cm

B. 12.4 cm

C. 14.5 cm

D. 16.1 cm

E. 18. 2 cm

33. Calculate the radius of a circle whose circumference is 21 cm. Leave your answer in term of π.

A. $\sqrt{\pi}\ cm$

B. 4π cm

C. $\frac{\pi}{2}\ cm$

D. $\frac{21}{2\pi}\ cm$

E. $\frac{44}{3\pi}\ cm$

34. Find the volume of cylinder whose base radius is $3\frac{1}{2}\ cm$ and height 10 cm. $\left(Take\ \pi = \frac{22}{7}\right)$

A. $110\ cm^3$

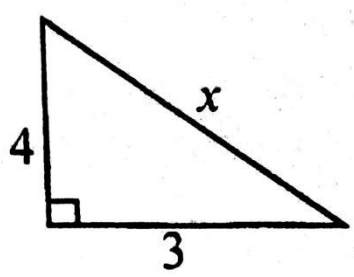
B. $128\ cm^3$

C. $193\ cm^3$

D. $220\ cm^3$

E. $385\ cm^3$

35. Find the value of x in the diagram below:



A. 2

B. 3

C. 5

D. 7

E. 10

36. The area of a circle is $154\ cm^3$. Find the perimeter of the circle. $\left(Take\ \pi = \frac{22}{7}\right)$

A. 7 cm

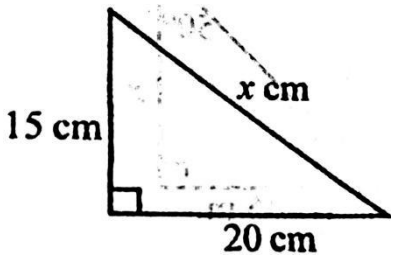
B. 14 cm

C. 44 cm

D. 49 cm

E. 154 cm

37. Find the perimeter of the shape below:



A. 20 cm

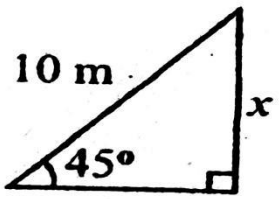
B. 25 cm

C. 35 cm

D. 40 cm

E. 60

38. Calculate the value of x in the figure below, correct to one decimal places.



A. 2.4 m

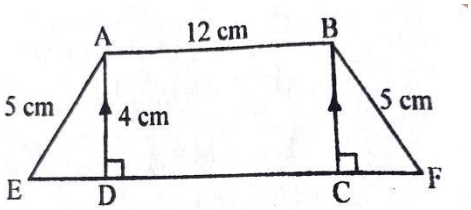
B. 5.3 m

C. 7.1 m

D. 9.2 m

E. 10.5 m

39. Find the area of the shape below:



A. $28\ cm^2$

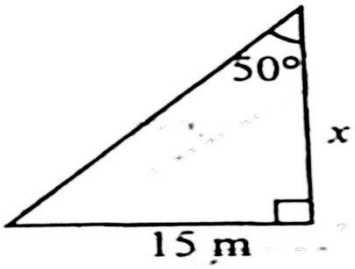
B. $30\ cm^2$

C. $38\ cm^2$

D. $54\ cm^2$

E. $60\ cm^2$

40. Calculate the value of x in the figure below, correct to two decimal places



A. 10.32 m

B. 12.59 m

C. 14.63 m

D. 16.25 m

E. 18.13 m

41. Calculate the area of a parallelogram whose base is 15 cm and height 2.5 cm.

A. 17.5 cm^2

B. 22.5 cm^2

C. 27.5 cm^2

D. 31.5 cm^2

E. 37.5 cm^2

42. Find the volume of a cuboid 25 cm long, 15 cm wide and 10 cm high.

A. 1 875 cm^3

B. 2 250 cm^3

C. 3 750 cm^3

D. 3 754 cm^3

E. 4 750 cm^3

43. Calculate the volume of a cone whose height is $\frac{3}{2}$ cm. $\left(Take\ \pi = \frac{22}{7}\right)$

A. 10 cm^3

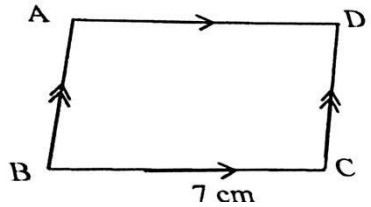
B. 11 cm^3

C. 14 cm^3

D. $22cm^3$

E. 33 cm^3

44. In the figure below, find the height of the parallelogram ABCD if its area is 28 cm^2



A. 4 cm

B. 6 cm

C. 18 cm

D. 28 cm

E. 32 cm

45. The bearing of X from Y is 145^0. what is the bearing of Y from X?

A. 045^0

B. 145^0

C. 215^0

D. 315^0

E. 325^0

46. Convert the compass bearing $S83^0W$ to a three-figured bearing.

A. 007^0

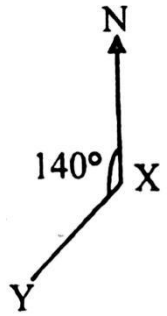
B. 083^0

C. 173^0

D. 180^0

E. 263^0

47. State the three-figured bearing of X from Y in the figure below:



A. 020^0

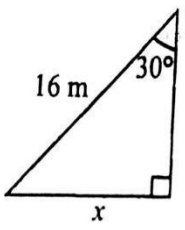
B. 022^0

C. 040^0

D. 220^0

E. 320^0

48. Find the value of x in the diagram below:



A. 2 m

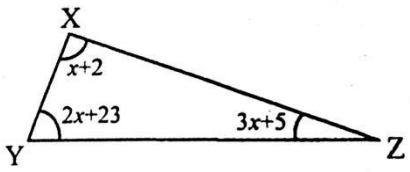
B. 3 m

C. 8 m

D. 16 m

E. 32 m

49. Find the value of x in the diagram below:



A. 25^0

B. 50^0

C. 85^0

D. 95^0

E. 180^0

50. The linear scale factor of two similar shapes is 3:4. If the area of the smaller shape is $81\ cm^2$, find the area of the bigger one.

A. $100\ cm^2$

B. $121\ cm^2$

C. $132\ cm^2$

D. $140\ cm^2$

E. $144\ cm^2$

51. A man bought an article for ₦ 6 800.00 and received ₦ 420.00 as commission. Calculate the percentage of the commission,, correct to one decimal place.

A. 3.5

B. 4.2

C. 5.9

D. 6.1

E. 6.2

52. The area and a diagonal of a rhombus are $360\ cm^2$ and 24 cm respectively. What is the length of the other diagonal?

A. 20 cm

B. 22 cm

C. 26 cm

D. 28 cm

E. 30 cm

53. The volume scale factor of two similar solids is 64:125. Determine their area scale factor.

A. 4:5

B. 5:4

C. 4:25

D. 16:25

E. 25:16

54. The linear scale factor of two similar shapes is 3:7. Determine their volume scale factor.

A. 9:27

B. 27:9

C. 27:49

D. 27:343

E. 343:27

55. The linear scale factor of two similar shapes is 4:5. Find their area scale factor.

A. 64:25

B. 25:16

C. 16:25

D. 16:125

E. 4:25

56. The area scale factor of two solid shapes are 4:9. if the volume of the bigger

shape is 270 cm^3, what is the volume of the smaller one?

A. 70 cm^3

B. 80 cm^3

C. 90 cm^3

D. 100 cm^3

E. 120 cm^3

57. PQRS is a parallelogram such that $|PQ| = 15\ cm$, $|QR| = 18\ cm$ and $< \text{PQR} = 30^0$. Determine the area of the parallelogram.

A. 105 cm^2

B. 135 cm^2

C. 180 cm^2

D. 210 cm^2

E. 270 cm^2

58. Find the area of a circle whose radius is 7 cm. $\left(Take\ \pi = \frac{22}{7}\right)$

A. 22 cm^2

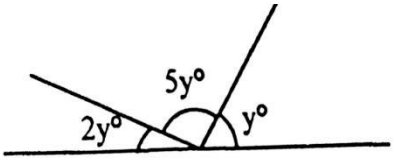
B. 70 cm^2

C. 90 cm^2

D. 120 cm^2

E. 154 cm^2

59. Find the value of y^0 in the diagram below:



A. 22.5

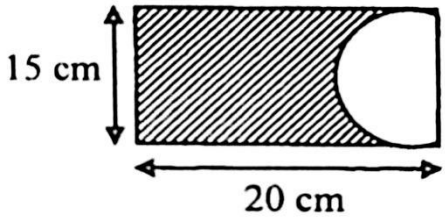
B. 30.0

C. 45.0

D. 90.0

E. 180.0

60. Calculate the area of the shaded portion in the figure below: $\left(Take\ \pi = \frac{22}{7}\right)$



A. 88 cm^2

B. 108 cm^2

C. 154 cm^2

D. 212 cm^2

E. 308 cm^2

PAPER II (60 marks)

61. If $3\text{x} \times 15 = 90$, find the value of x

A. 1

B. 2

C. 3

D. 4

E. 5

62. Solve for x if $3(4\text{x} - 8) + 12 = 0$

A. -2

B. -1

C. 0

D. 1

E. 2

63. Mr. Abraka thought of a number and added 3 times the number. If the result is 2 times the number plus 4, what is the number?

A. 2

B. 3

C. 5

D. 7

E. 8

64. Solve the equation $\frac{1}{m} = \frac{4}{5}$.

A. $1\frac{1}{4}$

B. $1\frac{1}{2}$

C. $2\frac{1}{2}$

D. $2\frac{2}{3}$

E. $3\frac{1}{4}$

65. Factorise $2m^2 - 8n^2$

A. $2(m + 2n)(m + 2n)$

B. $(m + 4n)(m + 4n)$

C. $(m - 4n)(m + 4n)$

D. $2(m + 8n)(m + 4n)$

E. $2(m - 2n)(m + 2n)$

66. Factorise $25x^2 - y^2$

A. $5(x + y)(2x + y)$

B. $2(5x + y)(x - y)$

C. $(3x + y)(5x - y)$

D. $(5x - y)(5x + y)$

E. $(x + y)(x - y)$

67. Factorise $x^2 + 4x - 12$.

A. $(x + 2)(x + 6)$

B. $(x + 2)(x + 4)$

C. $(x - 3)(x + 4)$

D. $(x - 2)(x + 6)$

E. $(x - 3)(x + 6)$

68. Express $\frac{3a}{5} + \frac{2b}{3}$ as a single fraction

A. $\frac{5a+3b}{8}$

B. $\frac{3a+2b}{8}$

C. $\frac{9a+5b}{15}$

D. $\frac{9a+8b}{15}$

E. $\frac{9a+10b}{15}$

69. Solve the equation $\frac{a-4}{5} = 2 - \frac{a}{2}$

A. 2

B. 4

C. 6

D. 8

E. 10

70. Simplify $\frac{n-1}{6} + \frac{n+1}{8}$.

A. $\frac{7n-7}{24}$

B. $\frac{7n+7}{24}$

C. $\frac{7n-1}{24}$

D. $\frac{n-7}{24}$

E. $\frac{n+7}{24}$

71. If $\frac{2(4x-1)}{2} = \frac{9(x+1)}{4}$, find the value of x.

A. $2\frac{4}{7}$

B. $2\frac{3}{7}$

C. $2\frac{2}{7}$

D. $2\frac{1}{7}$

E. $2\frac{6}{7}$

72. Solve the equation $\frac{8}{4(x-2)} = \frac{1}{10}$.

A. 10

B. 18

C. 20

D. 22

E. 30

73. Solve for x if $28x + \frac{3}{5} = x + \frac{3}{2}$

A. $\frac{1}{10}$

B. $\frac{1}{15}$

C. $\frac{1}{20}$

D. $\frac{1}{25}$

E. $\frac{1}{30}$

74. Factorise $3x^2 - y^2 - 3xy + xy$

A. $(x + y)(3x + y)$

B. $(x - y)(y + x)$

C. $(x - y)(3x - y)$

D. $(x + y)(3x - y)$

E. $(x - y)(3x + y)$

75. Expand and simplify $(5x - 3y)(2x + 4y)$.

A. $5x^2 + xy - 12y^2$

B. $5x^2 - xy - 12y^2$

C. $10x^2 + 14xy + 12y^2$

D. $10x^2 + 14xy - 12y^2$

E. $10x^2 - 14xy + 12y^2$

76. Olu thought of a number and subtracted 2 from it. He divided 32 by the result. If his answer is 4, find the number.

A. 2

B. 4

C. 6

D. 8

E. 10

77. Factorise $a^2 - 6a - 7$

A. $(a + 1)(a - 7)$

B. $(a - 1)(a - 7)$

C. $(a + 1)(a - 6)$

D. $(a - 1)(a - 6)$

E. $(a + 6)(a + 7)$

78. Factorise $a^2 + 9a + 8$

A. $(a - 1)(a + 4)$

B. $(a + 1)(a + 3)$

C. $(a + 1)(a + 8)$

D. $(a + 2)(a + 8)$

E. $(a + 3)(a + 5)$

79. Solve $4 + 4x \geq 5x + 8$.

A. $x > -4$

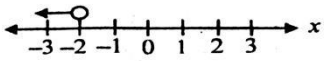
B. $x < -4$

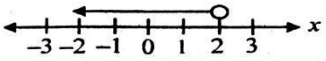
C. $x \geq -4$

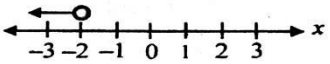
D. $x \leq -4$

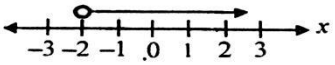
E. $x > 4$

80. Which of the following line graphs represents the solution of $2x > 6x + 8$?

A.


B.


C.


D.


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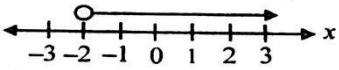


81. The sum of two numbers is 120. If one of the numbers is -75, find the other number.

A. -195

B. -45

C. 16

D. 45

E. 195

82. Which of the following is/are **not** method(s) of solving simultaneous linear equations?

I Elimination

II Completing the square

III Graphical

IV Substitution

V Use of formula

A. I only

B. II only

C. III only

D. II and V only

E. I, III and IV only

83. Multiply a number by 5, subtract 15 from the result. If the result is 50, find the number.

A. 5

B. 7

C. 10

D. 13

E. 30

84. Expand $(y-4)^2$

A. y^2-4y-4

B. y^2-4y+4

C. y^2-4y+8

D. y^2-8y+8

E. $y^2-8y+16$

85. Simplify $8\mathrm{x}+3(2\mathrm{y}-\mathrm{x})$

A. $3\mathrm{x}+4\mathrm{y}$

B. $2\mathrm{x}+6\mathrm{y}$

C. $5\mathrm{x}+6\mathrm{y}$

D. $6\mathrm{x}+5\mathrm{y}$

E. $5\mathrm{x}+11\mathrm{y}$

86. Solve $\mathrm{x}+8=12$.

A. 2

B. 4

C. 8

D. 10

E. 12

87. If 7 is added to a number x and the result is greater than 15, find the range of the number.

A. $\mathrm{x}<8$

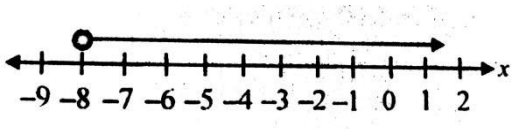
B. $\mathrm{x}>8$

C. $\mathrm{x}\leq 8$

D. $\mathrm{x}>12$

E. $\mathrm{x}<22$

88. The inequality represented on the linear graph below is



A. $\mathrm{x}>-8$

B. $\mathrm{x}<-8$

C. $\mathrm{x}\geq -8$

D. $\mathrm{x}\leq -8$

E. $\mathrm{x}\geq 8$

89. Find the value of $\frac{x}{z+y}$, when $\mathrm{x}=4, \mathrm{y}=-6$ and $\mathrm{z}=8$.

A. 2

B. 4

C. 6

D. 8

E. 10

90. Solve the equation $\frac{1}{9x+5}+\frac{1}{4}=0$.

A. -9

B. -1

C. 0

D. 1

E. 9

91. Solve the following equations simultaneously; $2\mathrm{x}+3\mathrm{y}=4, 6\mathrm{x}-\mathrm{y}=2$.

A. $\mathrm{x}=2, \mathrm{y}=3$

B. $\mathrm{x}=1, \mathrm{y}=2$

C. $\mathrm{x}=\frac{1}{2}, y=1$

D. $\mathrm{x}=\frac{1}{4}, y=0$

E. $\mathrm{x}=1, \mathrm{y}=\frac{1}{2}$

92. Simplify $\frac{2}{q}-\frac{3}{r}$.

A. $\frac{1}{qr}$

B. $\frac{r-q}{qr}$

C. $\frac{2r-3q}{qr}$

D. $\frac{3r-2q}{qr}$

E. $\frac{2r+3q}{qr}$

93. Solve $\frac{6}{x-4}=-\frac{1}{2}$.

A. -8

B. -4

C. -2

D. 4

E. 8

94. Simplify $\frac{m}{3t}-\frac{2n}{4p}$.

A. $\frac{pm-6nt}{12tp}$

B. $\frac{4pm-6n}{tp}$

C. $\frac{4pm-nt}{12tp}$

D. $\frac{2pm-3nt}{6tp}$

E. $\frac{3pm-2nt}{6tp}$

95. When twice a certain number is subtracted from 13, the result is less than or equal to 5. Find the range of values of the number.

A. $\mathrm{x} \leq -4$

B. $\mathrm{x} \geq -4$

C. $\mathrm{x} \leq 4$

D. $\mathrm{x} \geq 4$

E. $\mathrm{x} < 4$

96. Given that x varies inversely as the square of y and varies directly as z. If $\mathrm{x}=4, \mathrm{y}=1, \mathrm{z}=1$. Find x if $\mathrm{y}=3, \mathrm{z}=2$.

A. 1

B. $\frac{1}{3}$

C. $\frac{1}{2}$

D. $\frac{8}{9}$

E. $\frac{8}{3}$

97. If A varies directly as B, When $\mathrm{A}=10$ and $\mathrm{B}=5$. Find the value of A when $\mathrm{B}=16$.

A. 2

B. 4

C. 8

D. 32

E. 46

98. Which of the options below describes a direct variation?

A. $\mathrm{y}=0.7\mathrm{x}$

B. $\mathrm{y}=\frac{21}{x}$

C. $\mathrm{y}-\mathrm{x}=4$

D. $y = 3x + 2$

E. $y - 1 + x = 0$

99. y varies directly as x. If $y = 10, x = 5$, find the constant of proportionality.

A. 1

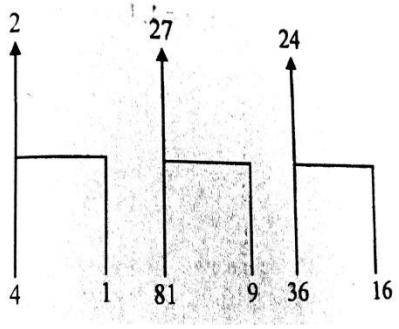
B. 2

C. 4

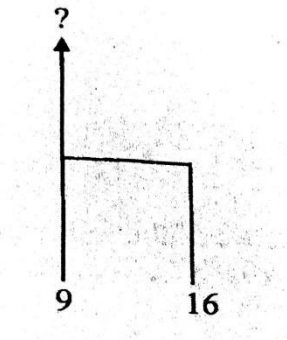
D. 6

E. 15

Use the relationship below to answer questions **100-102.**



100.



A. 3

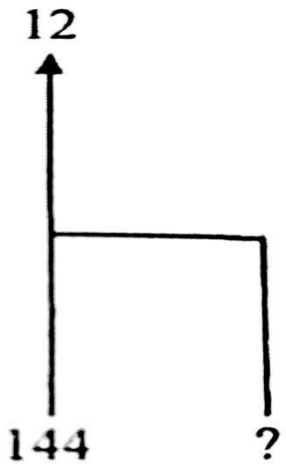
B. 6

C. 9

D. 12

E. 15

101.



A. 1

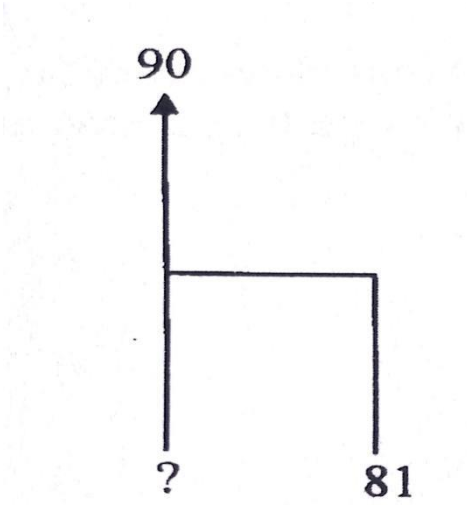
B. 4

C. 6

D. 8

E. 12

102.



A. 10

B. 20

C. 50

D. 75

E. 100

103. Find the range of the following set of numbers; 224, 139, 409, 306, 221, 401.

A. 177

B. 180

C. 185

D. 201

E. 270

104. The number represented by the tally ~~IIII~~ ~~IIII~~ IIII is

A. 12

B. 14

C. 15

D. 16

E. 20

105. If a coin is tossed twice, what is the probability of getting a head and a tail?

A. $\frac{1}{3}$

B. $\frac{1}{2}$

C. $\frac{2}{3}$

D. $\frac{3}{4}$

E. $\frac{4}{5}$

106. Find the sum of the median and the range of the following set of numbers; 1, 4, 2, 5, 3.

A. 1

B. 2

C. 3

D. 5

E. 7

107. Find the mode of the following set of numbers; 7, 7, 15, 12, 9, 5, 1, 7, 5, 12.

A. 5.0

B. 7.0

C. 7.5

D. 8.0

E. 8.5

108. The graphical representation of statistical data in block form joined together is

A. Bar chart

B. Data

C. Histogram

D. Pictogram

E. Pie chart

109. The mean of the following numbers 8, 12, 15, x, 9 is 12. Find the value of x.

A. 12

B. 13

C. 14

D. 16

E. 18

110. Find the mean of the following set of numbers; 16, 13, 15, 18, 27, 30, correct to two decimal places.

A. 14.83

B. 14.88

C. 19.83

D. 19.88

E. 59.50

111. Find the range of the following set of numbers; 101, 322, 223, 154, 132, 116.

A. 122

B. 206

C. 221

D. 227

E. 229

112. In a set of 18 scores arranged in ascending order, the 9^{th} score is 4 more

than the 10^{th} score. If the 10^{th} score is 12, find the median score.

A. 12

B. 13

C. 14

D. 15

E. 16

Use the information below to answer questions **113** and **114.**

Everton and Chelsea played 20 matches each and their average goals scored are 8.5 and 10.5 respectively.

113. What is the total goal scored by both clubs?

A. 40

B. 90

C. 170

D. 210

E. 380

114. Determine the mean goals of both clubs.

A. 8.7

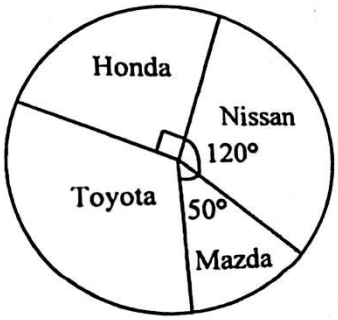
B. 9.2

C. 9.4

D. 9.5

E. 9.7

The pie chart below shows the weekly sales of a motor dealer. Use the chart to answer question **115-117**



115. What fraction of the cars were Honda?

A. $\frac{1}{5}$

B. $\frac{1}{4}$

C. $\frac{1}{3}$

D. $\frac{3}{4}$

E. $\frac{4}{5}$

116. What percentage of the cars were Nissan, correct to the nearest whole number?

A. 13

B. 33

C. 34

D. 43

E. 66

117. Calculate the sectorial angle of Toyota in a week?

A. 80^0

B. 100^0

C. 170^0

D. 270^0

E. 360^0

118. A box contains six red balls and four blue balls. If a ball is selected at random, what is the probability of selecting a blue ball?

A. $\frac{1}{5}$

B. $\frac{2}{5}$

C. $\frac{3}{5}$

D. $\frac{3}{4}$

E. $\frac{4}{5}$

119. If the die is rolled once, what is the probability of obtaining the number 10?

A. 0.0

B. 0.2

C. 0.5

D. 0.7

E. 1.0

120. If a die is cast, what is the probability of getting an even number?

A. $\frac{1}{3}$

B. $\frac{1}{2}$

C. $\frac{2}{3}$

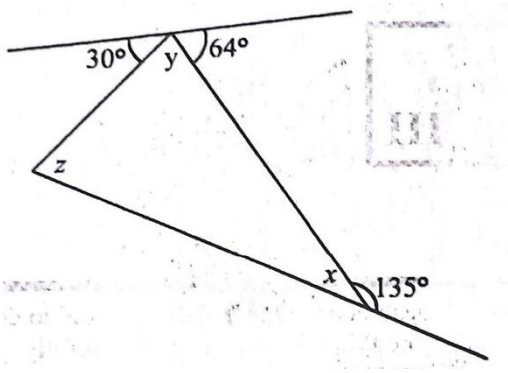
D. $\frac{3}{4}$

E. $\frac{4}{5}$

PAPER III (2024 PAST QUESTION)

Answer all questions.

1. (a) Find the values of x, y and z in the figure below:



(b) calculate the mean of the data below, correct to one decimal place.

Score(x)	9	10	12	13	15
f	3	5	2	2	3

[10marks]

2. **(a)** Evaluate $11011_{two} + 1111_{two.}$

(b) Solve the equation $\frac{2x-1}{3-4x} = \frac{2}{5}$.

(c) Find the rate per annum if N 36 000.00 is paid as simple interest on N 120 000.00 deposited in a bank for 3 years.

[10marks]