MATHEMATICS

Time: 2 hours

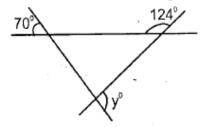
- 1. Which of the following numbers is eight million four hundred and eight thousand six hundred and twenty two in symbols?
 - A. 8408622
- B. 8480622_
 - C. 80408622 D. 8408620
- 2. What is the place value of digit 9 after working out: 647293+949763?
 - Ten thousands
 - B. 90000
 - C. Hundred of thousands
 - D. Thousands
- 3. Round off: 397624 to the nearest thousand
 - A. 390000
- B. 400000
- C. 397000
- D. 398000
- **4.** What is the square of 36?
 - A. 6
- B. 1296
- C. 72
- D. 18
- What is the reciprocal of $10\frac{3}{4}$?
 - A. $\frac{4}{43}$
- B. $\frac{43}{4}$
- $C_{*} \frac{4}{40}$
- D. $\frac{40}{4}$
- 6. What is the place value of digit 7 in the number 4.2756?
 - A. Tenths
- B. Hundredths
- C. Hundreds D. Tens
- 7. What is $\frac{2}{7}$ written as a decimal
 - correct to 2 decimal places?
 - A. 0.28
- B. 0.285
- C. 0.29
- D. 3.50

8. The area of a square plot is $6\frac{1}{4}$ m².

What is the length of one of its sides?

- A. $2\frac{1}{4}$ m B. $3\frac{1}{2}$ m
- C. $2\frac{1}{2}$ m D. $1\frac{1}{4}$ m
- 9. A rectangular plot measures 600m by 300m. Calculate its area.

 - A. 900000m² B. 180000m²
 - C. 1800000m² D. 1800m²
- 10. What is the square root of 25?
 - A. 5
- B. 625
- C. 50
- D. $12\frac{1}{2}$
- 11. Calculate the size of angle marked y.

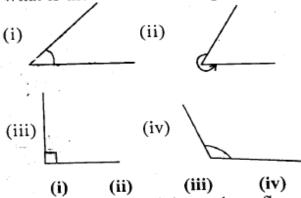


- A. 54⁰
- B. 70°
- C. 560
- D. 126°
- 12. Multiply:

Hrs min sec 24 48 8 8 Χ

- A. 67hrs 18min 24sec.
- B. 64hrs 192min 384sec.
- C. 65hr 95min 84sec.
- D. 64hrs 36min 24sec.

- 13. A family uses 2-200ml packets of milk everyday. How many litres did the family use in the month of January year 2016?
 - A. 12
- B. 12400
- C. 12000
- D. 12.4
- 14. Which one of the following fractions will form a recurring decimal?
 - A. $\frac{1}{2}$
- B. $\frac{3}{10}$
- C. $\frac{3}{7}$
- D. $\frac{4}{5}$
- 15. Simplify:
 - 3(2a+4a+2b-b)
 - A. 18a + 3b
 - B. 10a + b
 - C. 6a + 12a+ba-3b
 - D. 21ab
- 16. What is the name of the angles below?

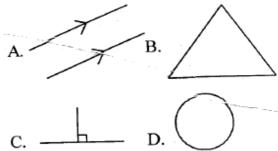


- A. Acute, obtuse, right-angle, reflex.
- B. Reflex, obtuse, right-angle, acute.
- C. Acute, reflex, right-angle, obtuse.
- D. Actute, right-angle, reflex, obtuse.
- 17. Solve for the value of a in:-

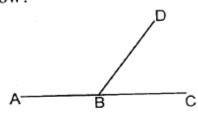
$$2a + 10 = 12$$

- A. a = 2
- B. a = 1
- C. a = 11
- D. 2a = 22
- 18. Which one of the following numbers is not divisible by 8?
 - A. 88888
- B. 40000
- C. 36422
- D. 9720

- 19. What is 0.45 written as a fraction in the simplest form?
 - A. $\frac{45}{100}$
- B. $\frac{9}{20}$
- C. $2\frac{1}{10}$
- D. $2\frac{2}{9}$
- 20. Which one of the following diagrams is drawn using a ruler and a set square?



21. What is the size of the angle CBD below?



- A. 55°
- B. 60°
- C. 120°
- D. 130°
- 22. Work out:

1	<u>m/</u>
420	199
x	6_

- A. 2520l 1194ml
- B. 25211 194ml
- C. 2531*l* 94ml
- D. 2520l 94ml
- 23. When is the shadow shortest?
 - A. 12.00am
- B. 7.00am
- C. 12.00pm
- D. 6.00pm
- 24. What is the sum of GCD and LCM of 24, 36 and 48?
 - A. 12
- B. 147
- C. 144
- D. 156

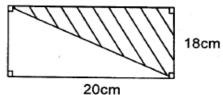
25. What is the next number in the sequence below?

125, 128, 133, 140, 149,

- A. 160
- B. 150
- C. 162
- D. 156
- What is 44 written as a roman number?
 - A. XLVI
- B. XLIV
- C. LXIV
- D. LXVI
- 27. What is $10\frac{7}{8}$ written as an improper fraction?
 - A. $\frac{8}{87}$

- **28.** Work out: $0.083 \times 12 =$
 - A. 0.996
- B. 9.96
- C. 996
- D. 0.0996
- **29.** Divide: $8160 \div 20 =$
 - A. 48
- B. 4008
- C. 480
- D. 408
- 30. In a school, 1488 pupils were boys and there were twice as many girls as boys. How many pupils were there altogether?
 - A. 4464
- B.1488
- C. 2976
- D.2232
- **31.** Work out: $2\frac{1}{4} \times 2\frac{2}{3} \times 3\frac{3}{4} =$
 - A. 6
- B. 10

- 32. What is 72 written as a product of its prime factors?
 - A. $2\times2\times2\times3$
- B. 8×9
- C. 2×2×2×3×3
- D. $2\times2\times3\times6$
- 33. Calculate the area of the shaded part in the figure below.



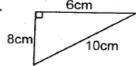
- A. 360cm²
- B. 76cm²
- C. 180cm²
- D. 38cm²

34. Work out:

- A. 3kg 3g B. 3kg
- C. 3kg 603g
 - D. 3kg 630g

63g

- 35. Angela bought the following items from a shop;
 - 2kg of sugar @ sh.100.
 - 11/2kg of rice each at sh.50.
 - 3bars of soap each sh.80.
 - 2packets of milk each at sh.50. If she paid using a one thousand shilling note, what balance did she receive?
 - A. sh.385
- B. sh.485
- C. sh.515
- D. sh.615
- 36. Calculate the area of the triangle below. 6cm



- A. 48cm²
- B. 40cm²
- C. 80cm²
- D. 24cm2
- 37. What is the size of the angle marked \mathbf{q} ?

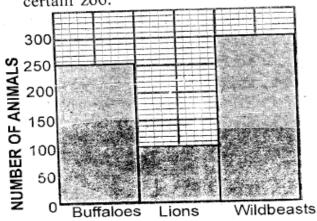


- A. 20°
- B. 220
- C. 158°
- D. 70°
- 38. Using your ruler and protractor, draw triangle PQR in which PQ = 6cm, angle $PQR = 60^{\circ}$ and angle $\mathbf{QPR} = 60^{\circ}$. What is the length of line PR?
 - A. 5.3cm
- B. 7.5cm
- C. 6cm
- D. 6.7cm
- 39. A line 6cm was drawn to represent a river using the scale 1cm represents 4000m. What was the actual length of the river in kilometres?
 - A. 24000km
- B. 24km
- C. 240km
- D. 2400km

- 40. Below are properties of a certain figure.
 - (i) All sides are equal.
 - (ii) All angles are equal.
 - (iii) Each angle is 90°.
 - (iv) Sum of all interior angles is 360° .

The figure described is a:-

- A. square
- B. rectangle
- C. triangle
- D. circle.
- 41. Below is a graph showing animals in a certain zoo.



ANIMALS

How many more wildbeasts and buffalos than lions were there?

- A. 550
- B. 450
- C. 300
- D. 200
- 42. What is 40% of 200 cows?
 - A. 240
- B. 8
- C. 160
- D. 80
- 43. How many 1/4 kg packets can be obtained from 44kg? .
 - A. 11
- B. 88
- C. 22
- D. 176
- **44.** Work out: $24 \times 3\frac{1}{4} =$
 - A. 6
- B. 13
- C. 312
- D. 78
- 45. Arrange the fractions below from the

largest to the smallest; $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{7}$

- A. $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{7}$ B. $\frac{1}{7}, \frac{1}{4}, \frac{1}{3}, \frac{1}{2}$
- C. $\frac{1}{2}, \frac{1}{7}, \frac{1}{3}, \frac{1}{4}$ D. $\frac{1}{4}, \frac{1}{3}, \frac{1}{7}, \frac{1}{2}$

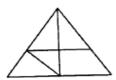
- **46.** Work out: $1\frac{1}{2} \div 2\frac{1}{4} =$

- C. $1\frac{1}{2}$ D. $3\frac{3}{8}$
- 47. What is 60% written as a fraction in the simplest form?

 - A. $\frac{3}{5}$ B. $\frac{2}{3}$
 - C. $1\frac{1}{2}$ D. $3\frac{3}{8}$
 - 48. Name the triangle below.



- A. Isosceles
- B. Equilateral
- C. Right angled D. Scalene
- 49. How many triangles are in the figure below?



- A. 5
- B. 8
- C. 11
- 50. What is the next pattern?

















D.

