

1. What is twenty nine million two hundred and ninety nine thousand two hundred and nine written in figures?

- A. 29 209 209
- B. 29 290 209
- C. 29 299 290
- D. 29 299 209

2. What is the smallest 6-digit number that can be formed using the digits 2, 7, 3, 0, 6, 9?

- A. 230679
- B. 023679
- C. 203679
- D. 976320

3. What is the value of

$$\frac{3^2 \text{ of } 2 \div (6 - 3) \times 2^2 - 2}{4^2 - 5} ?$$

- A. 2
- B. $\frac{11}{34}$
- C. $1\frac{5}{11}$
- D. $3\frac{1}{11}$

4. What is the total value of digit 6 in the number 5368294?

- A. 6,000
- B. 600,000
- C. Sixty thousand
- D. Ten thousands

5. What is the value of

$$\frac{3}{5} \div \frac{2}{3} - \frac{1}{2} \times \frac{1}{13} \text{ of } \left(\frac{1}{2} + \frac{4}{5}\right)?$$

- A. $\frac{17}{20}$
- B. $\frac{1}{2}$
- C. $1\frac{3}{17}$
- D. $\frac{19}{20}$

6. The following are prime factors of three numbers

- i) $2^3 \times 3$
- ii) $2^2 \times 3 \times 5$
- iii) $2^2 \times 3^2$

Which is the largest number that can divide all these numbers without a remainder?

- A. 24
- B. 720
- C. 6
- D. 12

7. Which one of the following statements is false?

- A. A rhombus is a parallelogram
- B. All quadrilaterals have two pairs of parallel lines
- C. A parallelogram is a rectangle
- D. A square is a parallelogram

8. What is the square of $(1\frac{2}{3})^2$?

- A. $\frac{9}{25}$
- B. $7\frac{58}{81}$
- C. $2\frac{7}{9}$
- D. $4\frac{1}{6}$

9. A certain solid has 5 faces and 6 vertices. How many edges does it have?

- A. 9
- B. 8
- C. 6
- D. 12

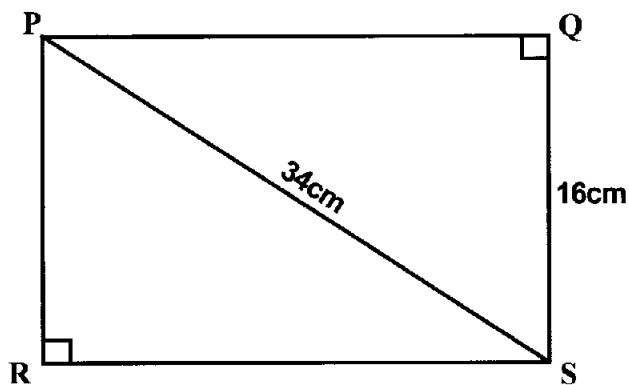
10. After an increase of 25%, Peter now earns Sh. 72000. How much was he earning before the increase?

- A. Sh. 14,400
- B. Sh. 54,000
- C. Sh. 86,400
- D. Sh. 57,600

11. A rectangular tank which is 8m long and 5m high contains 120,000 litres of water. What is its width in centimetres?

- A. 300
- B. 3
- C. 30
- D. 3,000

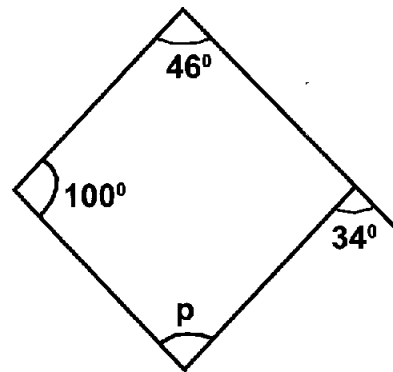
12. What is the value of m in $\frac{1}{3}m + 3(m + 4) = 22$?
- A. $5\frac{2}{5}$
 B. 3
 C. 4
 D. $9\frac{3}{5}$
13. A man had Sh. 36000. He gave $\frac{1}{4}$ of the money to his son and $\frac{1}{5}$ of the money to his daughter. The remaining money was shared equally between his two wives. How much money did each wife get?
- A. Sh. 8600
 B. Sh. 9000
 C. Sh. 9900
 D. Sh. 7200
14. Mitambo bought a T.V set by paying a deposit of Sh. 8000 and 6 equal monthly instalments of Sh. 3600 each. How much more than the marked price did he pay if the marked price was Sh. 25,000?
- A. Sh. 4,600
 B. Sh. 3,400
 C. Sh. 29,600
 D. Sh. 3,600
15. The figure below represents a rectangle PQRS.



- What is the area of the rectangle?
- A. 240cm^2
 B. 480cm^2
 C. 544cm^2
 D. 272cm^2

16. A circular piece of paper has an area of 314cm^2 . The paper is cut into two halves. What is the perimeter of each half?
- (Use $\pi = 3.14$)
- A. 62.8cm
 B. 31.4cm
 C. 25.7cm
 D. 51.4cm

17. What is the size of angle p in the figure below?



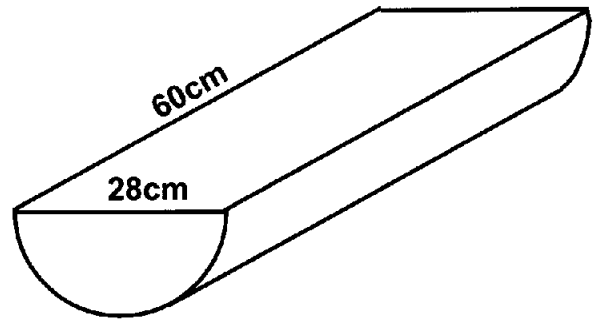
- A. 68°
 B. 58°
 C. 34°
 D. 112°
18. The table below shows the number of boys and girls in each class in Karega School in upper primary. Those in class five are not given

| Class | Four | Five | Six | Seven | Eight | Total |
|-------|------|------|-----|-------|-------|-------|
| Boys | 36 | — | 31 | 37 | 29 | 162 |
| Girls | 29 | — | 42 | 34 | 36 | 174 |

- How many more girls than boys are there in class five?
- A. 14
 B. 5
 C. 4
 D. 33
19. Construct a trapezium ABCD with AB parallel to DC. $AB = 10\text{cm}$, $BC = 5\text{cm}$, $CD = 4\text{cm}$ and angle $ABC = 45^\circ$. What is the measure of its perpendicular height?

- A. 4.2cm
- B. 3.7cm
- C. 4.5cm
- D. 5cm

20. Which statement about triangles below is incorrect?
- A. A triangle can have two obtuse angles
 - B. The adjacent angles in a triangle add up to 180°
 - C. All angles in an equilateral triangle are acute
 - D. A triangle can be right angled and isosceles
21. A section of a river 7.2 km long is represented on a map by a line 12cm long. What is the scale of the map?
- A. 1:600
 - B. 1:6000
 - C. 1:0.6
 - D. 1:60,000
22. A car dealer was left with Sh. 684,000 after paying 5% commission to an agent for the sale of a car. How much did the agent receive as commission?
- A. Sh. 720,000
 - B. Sh. 36,000
 - C. Sh. 34,200
 - D. Sh. 649,800
23. Given that $m = 4$, $n - m = 2$ and $p = 3$, what is the value of $\frac{1}{2}mp + \frac{nm}{n} + p^2$?
- A. 1
 - B. 16
 - C. 13
 - D. 19
24. The trough below was painted on the outside. What was the area painted?



- A. $18,480\text{cm}^2$
 - B. 5896cm^2
 - C. 3256cm^2
 - D. 4936cm^2
25. Njoroge walked from his home to school, 12 km away, for one hour and then ran back home in 30 min. What was his average speed for the whole journey?
- A. 36 km/h
 - B. 18 km/h
 - C. 8 km/h
 - D. 16 km/h
26. Eliza deposited Sh. 120,000 in a bank paying compound interest at a rate of 10% p.a. After one year she withdrew Sh. 52,000. How much money did she have in the bank at the end of the second year?
- A. Sh. 144,000
 - B. Sh. 77,000
 - C. Sh. 88,000
 - D. Sh. 145,200
27. What is the next number in the pattern below 67, 50, 37, 26, _____?
- A. 15
 - B. 17
 - C. 19
 - D. 33
28. 12 people were to construct a house in 8 days. If two people did not turn up, how many days did it take to construct the house to the nearest whole number?

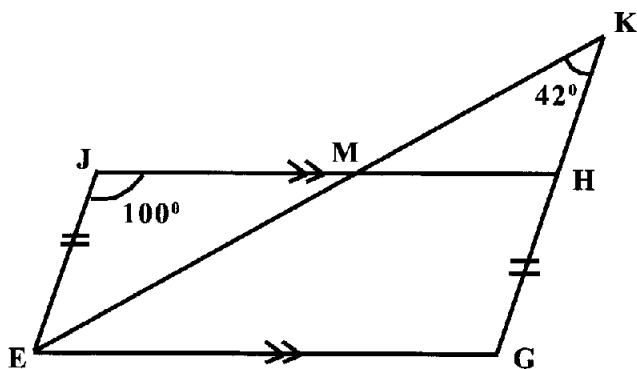
- A. 2
- B. 9.6
- C. 9
- D. 10

29. The table below shows a bus timetable for journeys between towns E and J

| Town | Arrival | Departure |
|------|---------|-----------|
| E | — | 0500 |
| F | 0630 | 0645 |
| G | 0710 | 0720 |
| H | 0820 | 0830 |
| I | 1145 | 1230 |
| J | 1345 | — |

If the bus does not stop anywhere, at what time would the bus arrive at town J?

- A. 12.25 a.m
 - B. 1225 hrs
 - C. 11.25 a.m
 - D. 1505 hrs
30. How many days are there between 4th Jan 2020 and 6th May 2020?
- A. 124
 - B. 120
 - C. 121
 - D. 122
31. In the figure below, lines EG and HJ are parallel. Line EJ and GH are equal. Angle EJH = 110° and angle HKM = 42°



What is the size of angle EMJ?

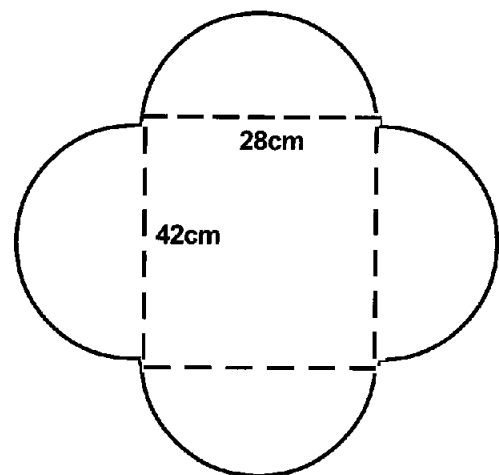
- A. 80°
- B. 58°

- C. 42°
- D. 38°

32. The area of a square garden is 1764m^2 . It was fenced using posts placed 6m apart. How many posts were used?
- A. 294
 - B. 28
 - C. 29
 - D. 32
33. A train arrived at town Q at 12.05 a.m on Thursday after a 6 h 15 min journey from town P. On which day and at what time had it left town P?
- A. Wednesday 1750 h
 - B. Thursday 6.20 a.m
 - C. Wednesday 5.50 a.m
 - D. Thursday 0550 h
34. Elisha bought a bag of pineapples containing 40 pineapples for Sh. 600. He paid Sh. 100 to a bodaboda to transport them to his kiosk. On opening, he found out that 4 pineapples were rotten and could not be sold. He however sold the remaining pineapples in groups of three for Sh. 100. How much profit did he make?
- A. Sh. 560
 - B. Sh. 1200
 - C. Sh. 500
 - D. Sh. 600
35. A rhombus has a perimeter of 80cm. One of its diagonals measure 32cm. What is the area of the rhombus?
- A. 320cm^2
 - B. 384cm^2
 - C. 160cm^2
 - D. 192cm^2

36. The average number of pupils in a school with 16 streams is 40. The average number of pupils in 12 of these streams is 42 pupils. What is the total number of pupils in the other 4 streams?
- A. 136
B. 160
C. 168
D. 34
37. A discount of 10% was allowed on all items in a shop. Terry paid Sh. 180 for a book. How much more would she have paid if there was no discount?
- A. Sh. 18
B. Sh. 200
C. Sh. 20
D. Sh. 198
38. A room measures 540cm by 420cm. What is the length of the largest square tiles that can be used to cover the floor without cutting them?
- A. 40cm
B. 120cm
C. 30cm
D. 60cm
39. What is the simplest form of $\frac{x+3}{4} + \frac{2x-1}{3}$?
- A. $11x + 13$
B. $\frac{11x+5}{12}$
C. $11x + 5$
D. $\frac{11x+13}{12}$
40. Which one of the following set of measurements can be used to construct a right-angled triangle?
- A. 0.6cm, 0.8cm, 1.2cm
B. 1.8cm, 1.2cm, 1.4cm
C. 0.4cm, 0.7cm, 1.3cm
D. 1.2cm, 1.6cm, 2.0cm

41. Caroline obtained the following marks in her end of January exam.
Maths $\frac{32}{50}$, Kisw 70%, Eng $\frac{18}{25}$,
SStre $\frac{48}{60}$, Science $\frac{37}{50}$. If a pie-chart was drawn to represent this information, what angle would represent English?
- A. 72°
B. 259.2°
C. 54°
D. 80°
42. A certain powder is packed into 1.25 kg packets. How many such packets will weigh two tonnes?
- A. 2,500
B. 160
C. 1,600
D. 16,00
43. The design below is made up of a rectangle and four semi-circles.



What is the area of the design in cm^2 ?

(Take $\pi = \frac{22}{7}$)

- A. 9184cm^2
B. 3178cm^2
C. 2177cm^2
D. 2002cm^2

44. Mkulima planted coffee bushes in rows. He planted 25 rows. Each row was 40m long. If the distance between any two bushes was $2\frac{1}{2}$ m, how many coffee bushes did he plant altogether?

- A. 400
- B. 401
- C. 16
- D. 425

45. A salesman earns a basic salary of Sh. 7000. He is also paid a commission of $1\frac{1}{2}\%$ of the value of items he sells above Sh. 40 000. In one month, he sold 1200 items at Sh. 50 each. What was his total earning that month?

- A. Sh. 7300
- B. Sh. 8200
- C. Sh. 7900
- D. Sh. 7600

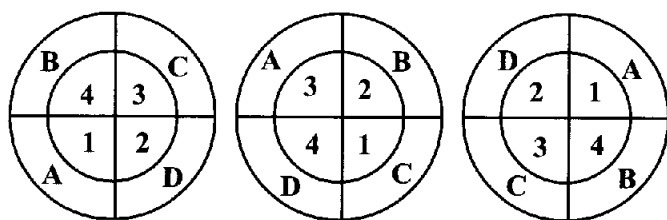
46. Karoki and Naomi shared some money in the ratio 7:4 respectively. Karoki got Sh. 450 more than Naomi. How much did Karoki get?

- A. Sh. 150
- B. Sh. 600
- C. Sh. 1050
- D. Sh. 1650

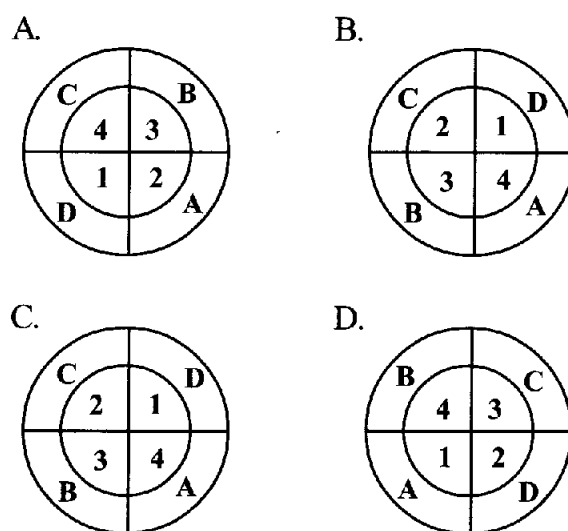
47. There were k children who bought t mangoes each. They threw away m mangoes which were rotten, then shared the remaining ones equally. How many mangoes did each child get?

- A. $\frac{kt - m}{k}$
- B. $\frac{ktm}{k}$
- C. $\frac{k + tm}{k}$
- D. $\frac{kt - m}{t}$

48. The shapes below show a sequence of a pattern.



Which one of the following shapes will be the fifth in the pattern?



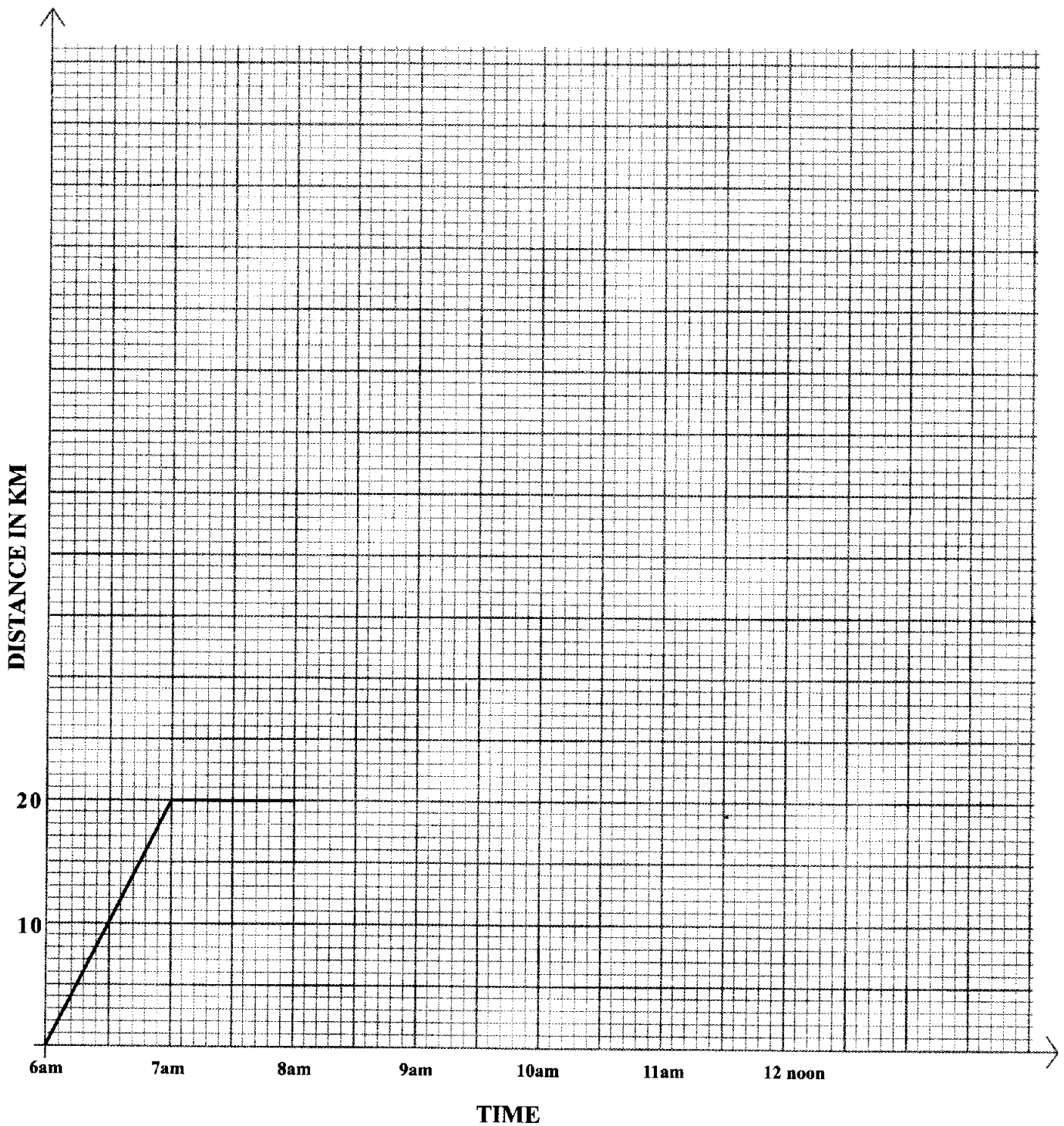
49. Below is an extract of mobile money transfer charges in Kenya

| Range (Sh) | Transaction charges (Sh) | |
|-------------|---------------------------|-----------------------------|
| | Customers in Same network | Customers in other networks |
| 0 – 100 | Free | Free |
| 101 – 500 | 12 | 17 |
| 501 – 1000 | 16 | 21 |
| 1001 – 2500 | 28 | 34 |
| 2501 – 3500 | 38 | 44 |
| 3501 – 5000 | 47 | 57 |

Pauline sent Sh. 2800 to her mum (same network) and another Sh. 1700 to her cousin (other network). How much did she spend altogether?

- A. Sh. 4982
- B. Sh. 4572
- C. Sh. 72
- D. Sh. 4566

50. The graph below shows part of Kamene's 80 km journey. After one hour rest, she continued at the same speed.



At what time did he complete the journey?

- A. 12 noon
- B. 11.30 a.m
- C. 11.00 a.m
- D. 12.30 p.m