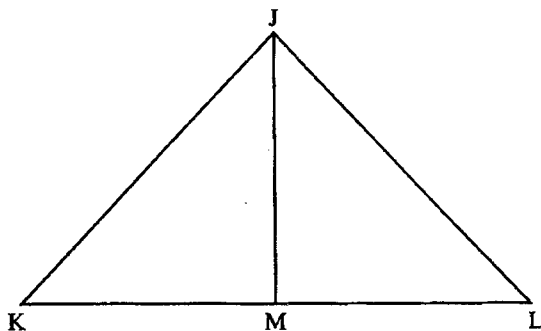


31. In the figure below, $JK = JL = 25$ cm and $KM = ML$. The perimeter of triangle $JKL = 98$ cm.



What is the length of the perpendicular line JM in centimetres?

- A. 25
 B. 24
 C. 12
 D. 7
32. Which one of the following expressions is equal to

$$\frac{5(2a - 3b) + 5(a + 5b)}{3(4a - 3b) + 3(a + 4b)}$$

- A. $\frac{15a + 10b}{15a + 3b}$
 B. $\frac{5 + 25b}{6 + 12b}$
 C. $\frac{15a + 40b}{15a + 21b}$
 D. $\frac{15a + 2b}{15a + b}$
33. The following table shows the commission charged when one buys postal orders.

VALUE OF ORDER (sh)	COMMISSION (sh)
100.00	11.00
200.00	12.00
300.00	23.00
400.00	39.00

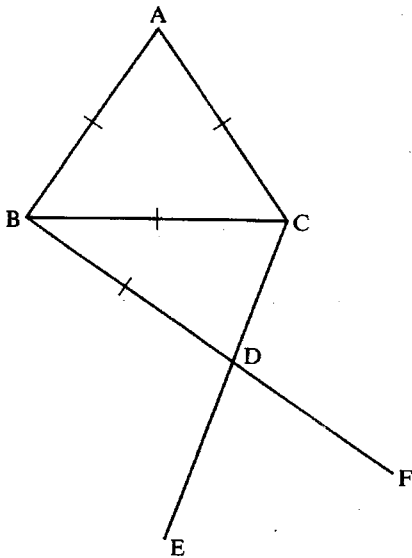
Wangeci wanted to send sh 700 by postal orders. Which one of the postal order combinations given below should she buy in order to pay the least commission?

- A. sh 400 + sh 300
 B. sh 400 + sh 100 + sh 100 + sh 100
 C. sh 300 + sh 300 + sh 100
 D. sh 200 + sh 200 + sh 200 + sh 100

34. An open cylindrical tin of diameter 14 cm and height 21 cm was painted on the outside. What was the area painted? (Take $\pi = \frac{22}{7}$)
- A. 3 234 cm²
 B. 2 464 cm²
 C. 1 232 cm²
 D. 1 078 cm²
35. What is the value of $\frac{r(p^2 + qp)}{r + q}$ given that $r = 6$,
 $p = r + 2$ and $q = p - 3$?
- A. $56\frac{8}{11}$
 B. $38\frac{6}{11}$
 C. $30\frac{6}{11}$
 D. $20\frac{4}{5}$
36. Asha and Musa are salespersons employed by two different companies. Asha's company pays her a monthly salary of sh 1 500 and a $2\frac{1}{2}\%$ commission on goods she sells above sh 10 000. Musa's company only gives him a 6% commission on all goods he sells. On a certain month Asha and Musa each sold goods worth sh 40 000. How much more money was Musa paid than Asha?
- A. sh 2 400
 B. sh 2 250
 C. sh 900
 D. sh 150
37. What is the value of $1\frac{1}{6} + \frac{1}{4} \times \frac{2}{3} + \frac{5}{8}$?
- A. $\frac{59}{72}$
 B. $3\frac{1}{72}$
 C. $3\frac{53}{72}$
 D. $7\frac{5}{8}$
38. A pick-up whose mass is one tonne when empty was loaded with 40 bags of sugar each weighing 50 kg and three bags of maize each weighing 65 kg. What was the total mass, in tonnes, of the loaded pick-up?
- A. 3.195
 B. 3.065
 C. 3.0
 D. 2.195

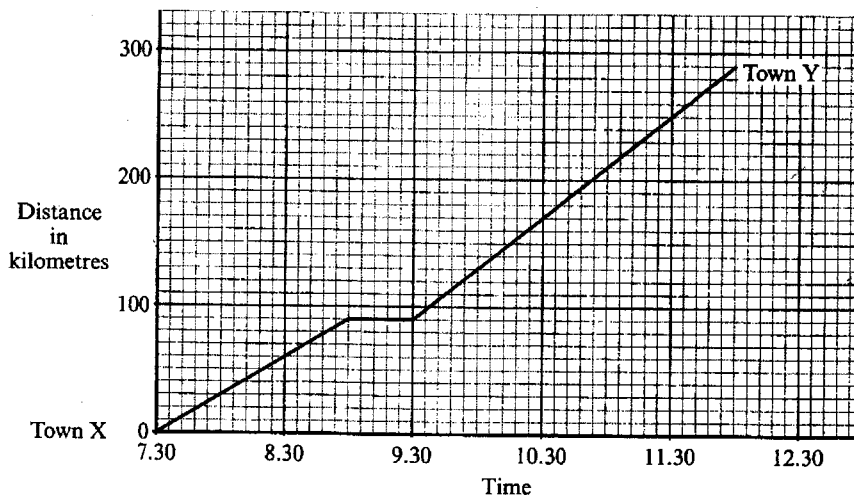
39. In a relay race Obong'o ran 600 m, which is $\frac{2}{5}$ of the race, in 3 minutes. Kyalo took 5 minutes to complete the rest of the race.
What was the average speed for the whole race in m/s?
- A. 3
 - B. $3\frac{1}{8}$
 - C. $3\frac{1}{6}$
 - D. $3\frac{1}{3}$
40. Forty two men were hired to repair a stretch of road in 14 days. How many more men should be hired if the work was to be finished in 12 days?
- A. 6
 - B. 7
 - C. 49
 - D. 91
41. The number of women passengers in a bus was W. The number of children in the bus was three times that of men passengers but was 6 more than that of women.
Which one of the following expressions shows the total number of passengers in the bus?
- A. $2\frac{1}{3}W + 8$
 - B. $2\frac{1}{3}W - 8$
 - C. $2\frac{1}{3}W + 12$
 - D. $5W + 24$

42. In the figure below lines AB, AC, BC and BD are equal. BDF and CDE are straight lines and angle ABD is a right angle.



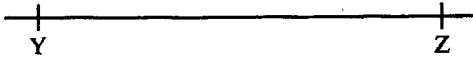
- What is the size of angle EDF?
- A. 30°
 - B. 45°
 - C. 60°
 - D. 75°

43. The graph below shows Muli's journey from town X to town Y.



- What was the average speed, in km/h, for the whole journey?
- A. $72\frac{1}{2}$
 - B. 70
 - C. $64\frac{4}{9}$
 - D. $44\frac{4}{9}$

44. On line YZ given below, complete the construction of the isosceles triangle XYZ where $XY = XZ = 8$ cm. Construct a circle centre O which touches the sides of the triangle.



What is the radius of the circle?

- A. 2 cm
 B. 3.6 cm
 C. 4.3 cm
 D. 5.4 cm
45. The hire purchase price for a wall cabinet is 25% more than the cash price. Kalulu bought the cabinet on hire purchase terms by paying a deposit of sh 13 200 and the remaining amount in 12 equal monthly instalments.
- If the cash price was sh 24 000, how much was each monthly instalment?
- A. sh 400
 B. sh 900
 C. sh 1 400
 D. sh 2 500
46. A flower garden is made up of a semicircle of diameter 14 m, a rectangle measuring 20 metres long and 14 metres wide and a quarter of a circle of radius 14 m.

What is the area of the flower garden in m^2 ?
 (Take $\pi = \frac{22}{7}$)

- A. 742
 B. 665
 C. 511
 D. $395\frac{1}{2}$

47. Kamau, Wasike and Omollo sell newspapers. One day Omollo sold 20 newspapers more than Wasike who sold 10 newspapers more than Kamau. The total number of newspapers they sold that day was 140.

If Wasike sold y newspapers, which one of the following equations can be used to find the number of newspapers sold by Wasike?

- A. $3y + 10 = 140$
 - B. $3y + 30 = 140$
 - C. $3y + 20 = 140$
 - D. $y + 30 = 140$
48. Moraa shared money among her four children, Muta, Somo, Nduta and Aroya. Muta got $\frac{1}{3}$ of the money while Somo got $\frac{1}{2}$ of the remainder. The rest was shared equally between Nduta and Aroya.

What fraction of the money did Aroya get?

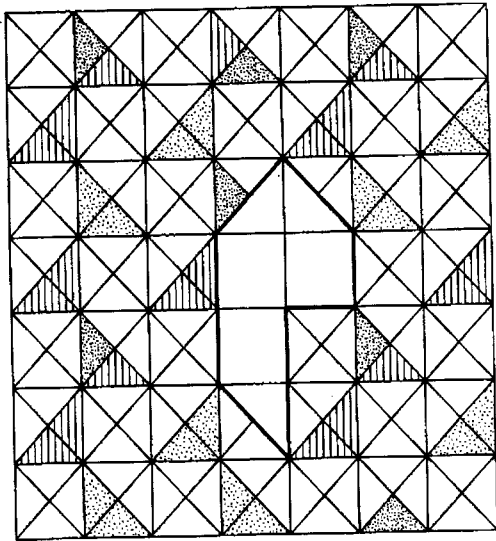
- A. $\frac{1}{12}$
 - B. $\frac{1}{6}$
 - C. $\frac{1}{3}$
 - D. $\frac{1}{2}$
49. A tailor had 17.5 m of cloth material. From this material she made 2 dresses each requiring 3.75 m of material, and 3 jackets each requiring 2.4 m of material.

What length of material remained?

- A. 1.4 m
- B. 2.8 m
- C. 11.35 m
- D. 14.7 m

50. An incomplete pattern is shown below.

Working Space



Which one of the shapes below will complete the pattern above?

A. B. C. D.

