1. Which one of the following is 3200104 in words?
A. Thirty two thousand one hundred and four.
B. Three million two thousand one hundred and four.
C. Three hundred and twenty thousand one hundred and four.
D. Three million two hundred thousand one hundred and four.

2. Which one of the following numbers has the smallest value?
A. 111010
B. 101101
C. 110110
D. 101011

3. A rectangular water tank is 6 metres long, 4 metres wide and 3 metres high. How many litres of water does the tank hold when full?
A. 72 *l*
B. 7 200 *l*
C. 72 000 *l*
D. 72 000 000 *l*

4. What is the number 29 853 when rounded to the nearest thousand?
A. 29 000
B. 29 850
C. 29 900
D. 30 000

5. What is the place value of digit 5 in the number 1050067?
A. Thousands
B. Ten thousands
C. Fifty thousands
D. Hundred thousands

6. What is the value of $\frac{24\,(72-69)+6\times 4}{12}$?
A. 8
B. 26
C. 30
D. 74

7. What is the value of $\frac{8^2(9^2-3^2)}{4^2\times 6^2}$?
A. 4
B. 8
C. 2
D. $\frac{2}{3}$

8. What is 23·1408 correct to three decimal places?
A. 23·0
B. 23·1
C. 23·140
D. 23·141

9. The marked price of a pair of shoes was sh. 250. During a sale the price was reduced to sh. 200. What was the percentage decrease in price?
A. 80%
B. 50%
C. 25%
D. 20%

10. What is the L.C.M. of 15, 20 and 30?
A. 120
B. 60
C. 15
D. 5

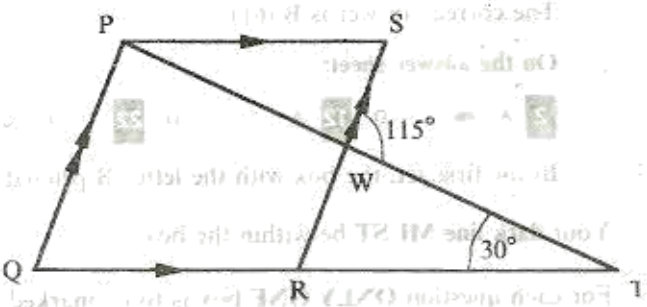
11. The table below shows the maximum and minimum temperatures, in degrees celsius, recorded in different cities on one day.

City	Maximum °C	Minimum °C
Dar-es-Salaam	33	22
Khartoum	31	16
Accra	32	24
Entebbe	30	18

In which city was the mean temperature highest that day?
A. Dar-es-Salaam.
B. Khartoum.
C. Entebbe.
D. Accra.

12. What is the ratio 3 : 5 expressed as a decimal?
A. 1·6
B. 0·625
C. 0·6
D. 0·375

13. In the figure below PQRS is a parallelogram. Lines QRT and PWT are straight. Angle QTP = 30° and angle SWT = 115°.



What is the size of angle PQR?
A. 65°
B. 85°
C. 95°
D. 115°

14. In the year 2000, February 19th was a Saturday. What day was March 6th the same year?
A. Sunday
B. Monday
C. Tuesday
D. Wednesday

15. What is the value of
$0{\cdot}3 \times 0{\cdot}94 + (0{\cdot}304 + 0{\cdot}123 \div 0{\cdot}4)$?
A. 1·3495
B. 1·7725
C. 0·8935
D. 0·60225

16. Boxes measuring 10 cm by 6 cm by 4 cm were to be packed in a carton measuring 1·5 m by 1 m by 0·4 m. How many boxes were needed to fill the carton?
A. 25 000
B. 2 500
C. 250
D. 25

17. A cylinder which is open at one end has a radius of 6·3 cm and a height of 25 cm. What is the surface area of the cylinder in square centimetres?
(Take $\pi = \frac{22}{7}$).
A. 1114·74
B. 1239·48
C. 3118·50
D. 619·74

18. A cuboid measures 6 cm long, 5 cm wide and 4 cm high. What is the total length of the edges in centimetres?
A. 30
B. 60
C. 90
D. 120

19. The price of a radio was reduced by sh. 630. This represented a 30% discount. What was the price of the radio after the discount?
A. sh. 441
B. sh. 1470
C. sh. 2100
D. sh. 2730

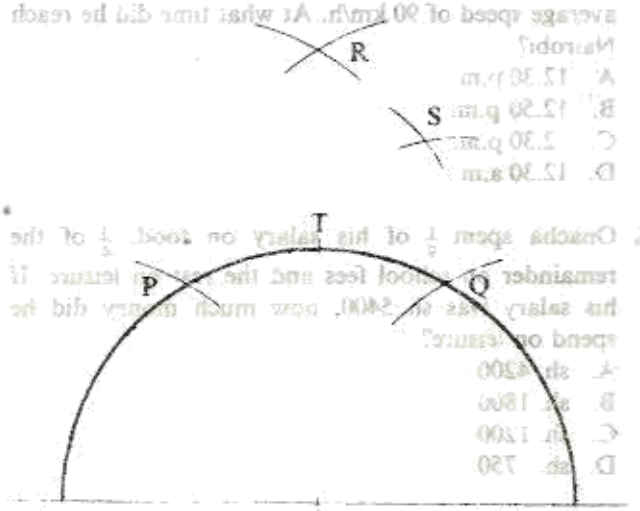
20. What is the next number in the sequence 7, 16, 32, 57, ____ ?
A. 93
B. 89
C. 82
D. 63

21. What is the value of x in the equation $\frac{2(x-6)}{5} = \frac{2}{3}$?
A. $7\frac{2}{3}$
B. 7
C. $2\frac{2}{3}$
D. 1

22. Fifteen people working at the same rate would complete some work in 10 days. How many days would 6 people need to complete the same work?
A. 4
B. 9
C. 25
D. 150

23. In 1998, Wanja harvested 4 676 bags of maize. This was 168 bags more than those she harvested in 1997. How many bags of maize did she harvest in 1997?
A. 17
B. 513
C. 4 508
D. 5 021

24. The figure below shows a construction of angle XYS = 105°.



Which group of points shows the order of construction?
A. Q, P, T, S, R
B. Q, P, R, S, T
C. Q, P, R, T, S
D. Q, P, T, R, S

25. Kiprono hired two *Mikokoteni* to transport items to his kiosk in the market. Each *Mkokoteni* carried the following items:

1 bag of onions weighing 141·7 kg;
2 bags of fresh peas each weighing 51·3 kg;
3 bags of green maize each weighing 114·6 kg.

What was the total weight, in kilograms, of all the items transported?

A. 1176·2
B. 615·2
C. 307·6
D. 588·1

26. Wangui bought the following articles from a shop:

2 kg cooking fat @ sh. 100;
2 loaves of bread @ sh. 20;
2 kg packet of unga for sh. 55;
$\frac{1}{2}$ kg tea leaves for sh. 100.

What balance did she receive from the shopkeeper if she gave a sh. 500 note?

A. sh. 395
B. sh. 100
C. sh. 225
D. sh. 105

27. A motorist left home at 10.00 a.m. and travelled to Nairobi, a distance of 225 km. He travelled at an average speed of 90 km/h. At what time did he reach Nairobi?

A. 12.30 p.m.
B. 12.50 p.m.
C. 2.30 p.m.
D. 12.30 a.m.

28. Onacha spent $\frac{1}{9}$ of his salary on food, $\frac{3}{4}$ of the remainder on school fees and the rest on leisure. If his salary was sh. 5400, how much money did he spend on leisure?

A. sh. 4200
B. sh. 1800
C. sh. 1200
D. sh. 750

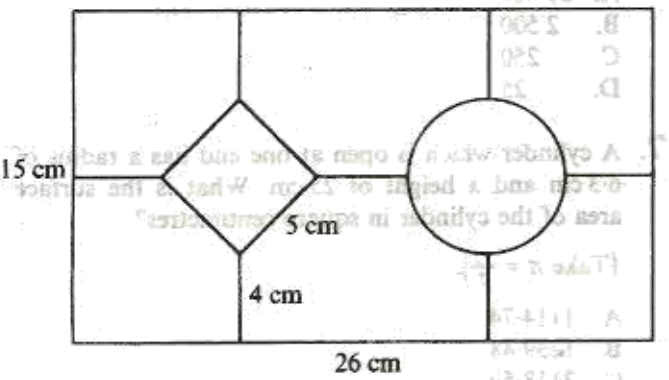
29. Kirwa used a ladder to paint the top of a wall. He placed the bottom of the ladder $4\frac{1}{2}$ metres away from the wall. The ladder touched the wall at a height of 6 metres. What was the length of the ladder?

A. $7\frac{1}{2}$ m
B. $10\frac{1}{2}$ m
C. 15 m
D. $56\frac{1}{4}$ m

30. The cash price of a bed is sh. 11 700. The hire purchase price is 20% more than the cash price. Mbugua bought a bed on hire purchase terms. He paid a deposit of sh. 2808 and 12 equal monthly instalments. How much was each monthly instalment?

A. sh. 1404
B. sh. 1170
C. sh. 936
D. sh. 546

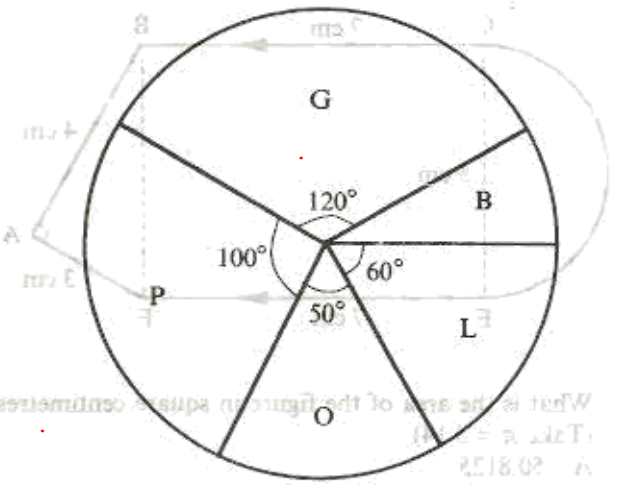
31. The figure below represents a design of a window. The design consists of a square of sides 5 cm, a circle of diameter 7 cm and a rectangular frame measuring 26 cm by 15 cm. The square and the circle are joined to each other and to the frame by lines each 4 cm long.



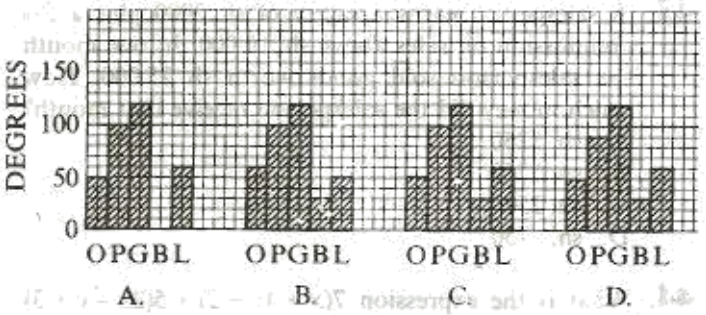
What is the total length, in cm, of the metal needed to make the design?
(Take $\pi = \frac{22}{7}$)

A. 42
B. 82
C. 124
D. 152

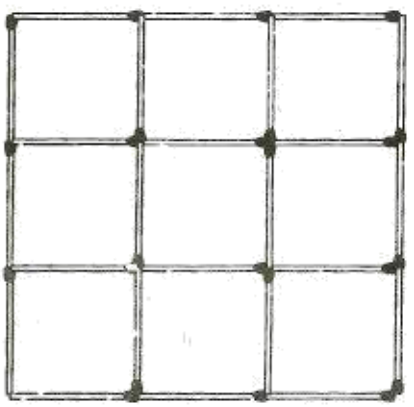
32. A farm produced oranges (O), Pawpaws (P), guavas (G), bananas (B) and lemons (L). The pie-chart below represents quantities of each type of fruit produced in one week.



Which one of the bar graphs below represents the information obtained from the pie-chart above?



33. A pupil arranged matchsticks to form squares as shown below.



How many squares were formed altogether?

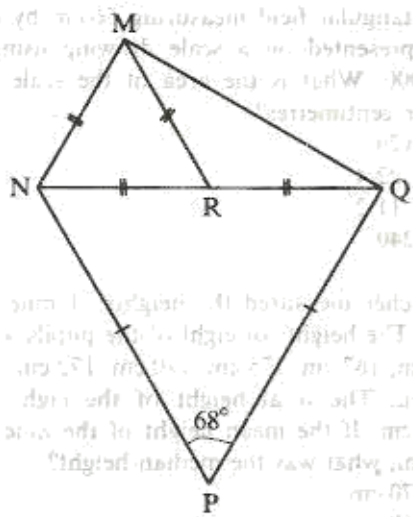
A. 14
B. 13
C. 10
D. 9

34. A plane left Nairobi at 23 50 hr on Monday and took 1 hr 45 minutes to reach Mombasa where it stopped for 50 minutes. It then left Mombasa and took 40 minutes to reach Zanzibar.

At what time in a.m./p.m. system did it reach Zanzibar?

A. 2.15 a.m.
B. 3.05 a.m.
C. 2.15 p.m.
D. 3.05 p.m.

35. In the figure below, line MN = NR = RM = RQ. NRQ is a straight line and line NP = PQ. Angle NPQ = 68°.



What is the size of angle PQM?

A. 56°
B. 116°
C. 86°
D. 98°

36. What is the value of $\frac{m + r^2}{p + r}$ given $m = 2p$, $p = n + 5$, $n = 3r$ and $r = 5$?

A. $2\frac{1}{5}$
B. $2\frac{3}{5}$
C. $3\frac{1}{4}$
D. 2

37. A fruit vendor spent sh. 160 to buy 28 bananas, 60 tomatoes and 14 oranges. He paid sh. 40 for transport. During the transportation, 9 tomatoes and 1 banana got spoilt. He then sold the remaining fruits as follows:

1 banana for sh. 3
3 tomatoes for sh. 5
1 orange for sh. 6

What was the percentage profit?

A. $56\frac{1}{4}\%$
B. 34%
C. 25%
D. 20%

38. A rectangular field measuring 560 m by 800 m is to be represented on a scale drawing using the scale 1:20 000. What is the area of the scale drawing in square centimetres?

A. 1120
B. 22·4
C. 11·2
D. 2240

39. A teacher measured the heights of nine pupils in a class. The heights of eight of the pupils were 167 cm, 170 cm, 167 cm, 175 cm, 170 cm, 172 cm, 167 cm and 168 cm. The total height of the eight pupils was 1356 cm. If the mean height of the nine pupils was 169 cm, what was the median height?

A. 170 cm
B. 168 cm
C. 167 cm
D. 165 cm

40. Muyaka had money as follows:

4 notes of sh. 1000
3 notes of sh. 500
16 notes of sh. 200
11 notes of sh. 100
9 notes of sh. 50

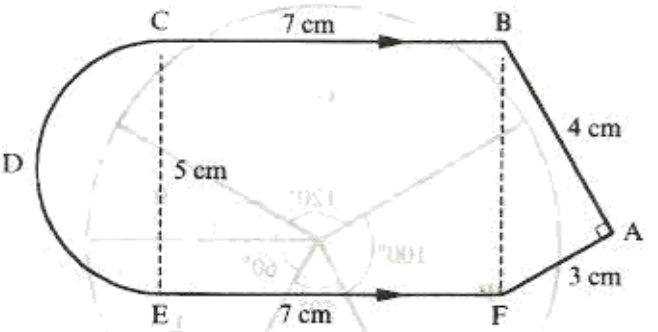
She changed all the money into five-shilling coins. How many five-shilling coins did she get?

A. 51 250
B. 10 250
C. 2 050
D. 370

41. A fundraising meeting for Jako, Kabula, Masindu and Buko raised sh. 108 000. Jako got three times as much as Buko. Masindu got two-thirds of Jako's share while Kabula got half as much as Jako. How much did Kabula receive?

A. sh. 43 200
B. sh. 28 800
C. sh. 21 600
D. sh. 14 400

42. In the figure below, angle BAF is a right angle. Line CB is parallel to EF and CB = EF = 7 cm. Line BA = 4 cm and AF = 3 cm. EDC is a semi-circle of diameter 5 cm.



What is the area of the figure in square centimetres? (Take $\pi = 3{\cdot}14$)

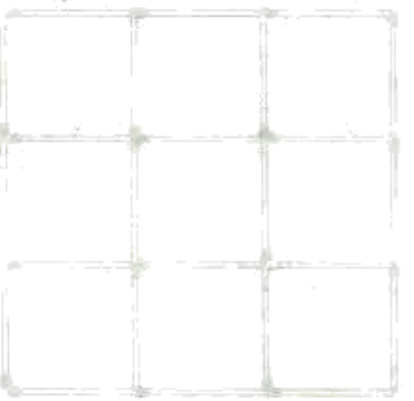
A. 50·8125
B. 56·8125
C. 60·6250
D. 80·2500

43. A salesperson earns a salary of sh. 2000 plus a 5% commission on sales above sh. 10 000. In one month the salesperson sold goods worth sh. 25 000. How much money did the salesperson receive that month?

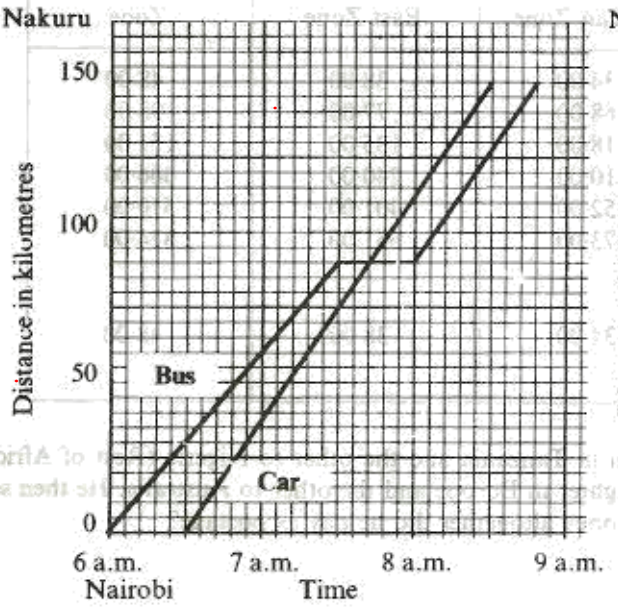
A. sh. 3250
B. sh. 2750
C. sh. 2500
D. sh. 750

44. What is the expression $7(x + 4y + 2) + 5(2x - y + 3)$ in its simplified form?

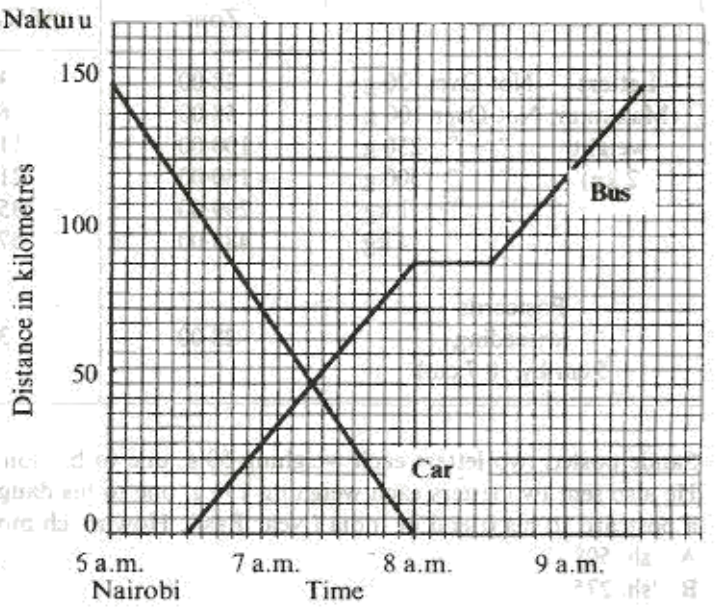
A. $17x + 23y + 29$
B. $3x + 3y + 29$
C. $17x + 3y + 5$
D. $9x + 27y + 17$



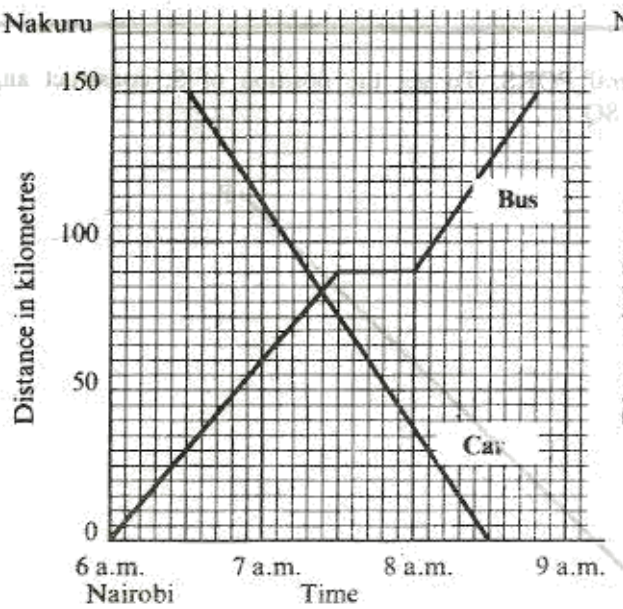
45. A bus left Nairobi for Nakuru, a distance of 150 km, at 6 a.m. After travelling for $1\frac{1}{2}$ hours at an average speed of 60 km/h it got a puncture. It took 30 minutes to change the wheel. The bus then travelled at an average speed of 75 km/h for the rest of the journey. On the same day a car left Nakuru for Nairobi at 6.30 a.m. and took 2 hours to reach Nairobi. Which one of the graphs below represents the bus and the car journeys?



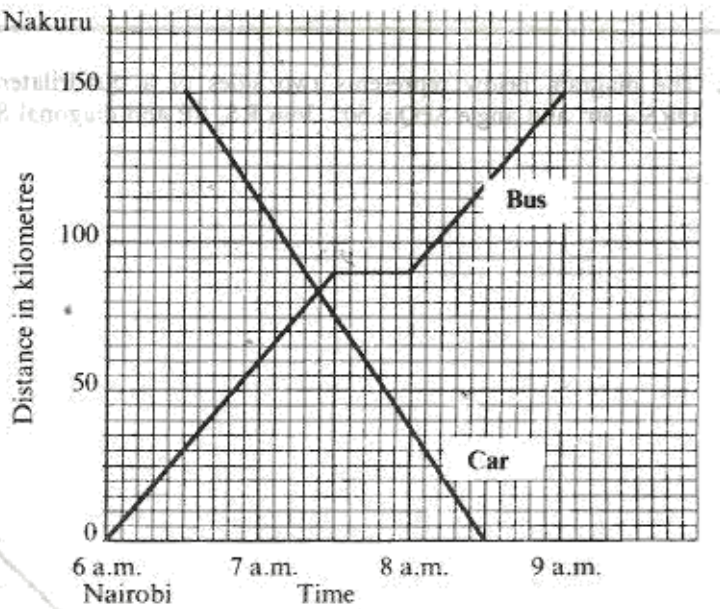
A.



B.



C.



D.

46. The table below shows the rates charged for postage:

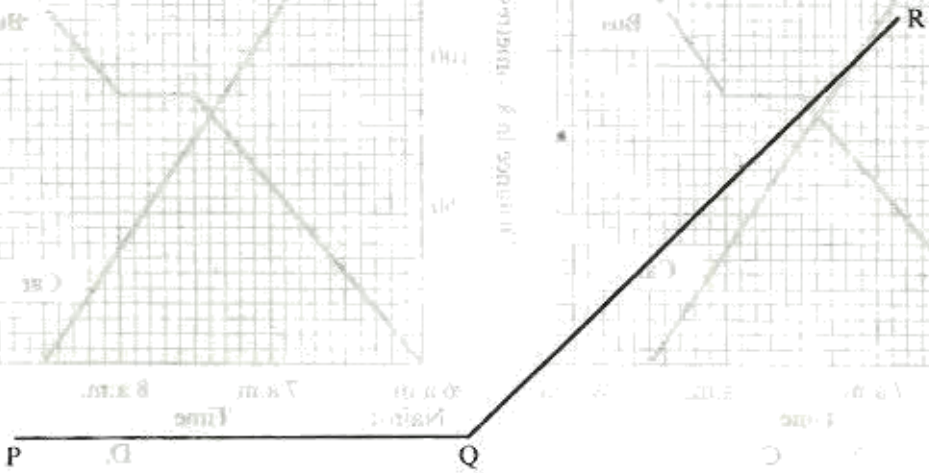
	Countries within East African Zone	Countries within the Rest of African Zone	Countries within Europe, Middle & Near East Zone	Australia, America & Far East Zone
Letters (Maximum weight 2 kg) Not Over 20 g	28·00	34·00	38·00	48·00
" " 100 g	58·00	68·00	77·00	98·00
" " 250 g	100·00	118·00	135·00	171·00
" " 500 g	180·00	210·00	240·00	306·00
" " 1 kg	299·00	352·00	401·00	510·00
" " 2 kg	488·00	573·00	651·00	824·00
Postcards (exceeding 5 cm by 10·7 cm)	28·00	34·00	38·00	48·00

Sande posted two letters each weighing 50 g, one to his son in Tanzania and the other to Nigeria (Rest of Africa). He also sent two letters each weighing 150 g, one to his daughter in Europe and the other to Australia. He then sent a postcard to his friend in India (Near East). How much money altogether did he pay as postage?

A. sh. 508
B. sh. 275
C. sh. 432
D. sh. 470

---

47. The diagram below represents two sides of a quadrilateral PQRS. To get the position of S, construct angle QRS = 30° and angle SPQ = 60°. Join RS, SP and diagonal SQ.



What is the length of line SQ?

A. 3·5
B. 5·3
C. 10·2
D. 12·9

48. Odour invested a certain amount of money in a business that paid simple interest at the rate of 15% per annum. At the end of nine months he withdrew sh. 1125 which was the interest the money had earned. How much money had he invested?

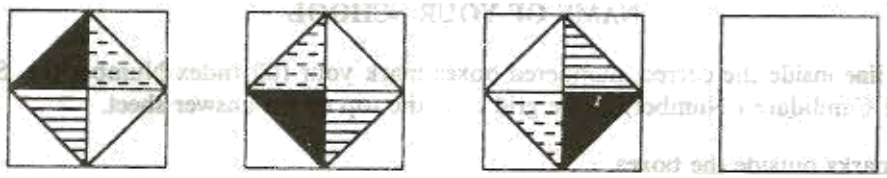
A. sh. 100
B. sh. 5625
C. sh. 7500
D. sh. 10 000

49. In a cupboard there are pencils, rulers and books. The number of pencils is 15 more than that of rulers. The number of books is three times that of rulers. If the number of pencils is p, which one of the expressions below represents the total number of items in the cupboard?

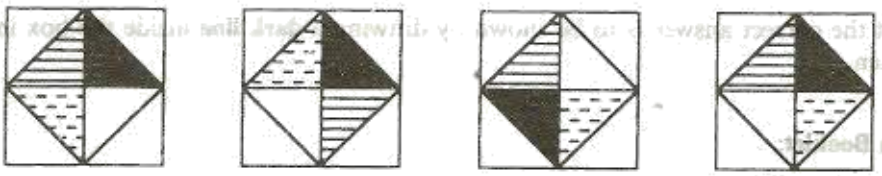
A. $5p - 60$
B. $3p - 27$
C. $5p + 60$
D. $5p - 30$

Working Space

50.



Which one of the following shapes below should be drawn in the blank box to continue the pattern above?



A. B. C. D.