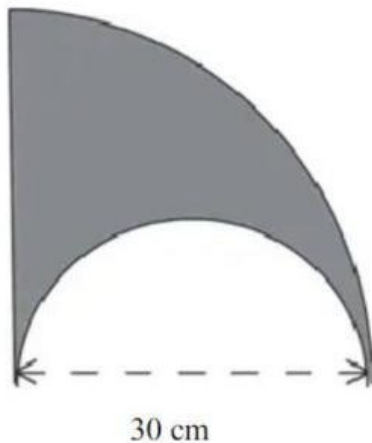# PRACTICE PROBLEMS

The figure is made up of a semicircle and a quadrant.

Find the perimeter and area of the shaded part and round off your answers to nearest whole number. Take value of pi = 3.142

Perimeter = _____ cm   Area = _____ sq cm

30 cm

Peter is now 24p years old. He is thrice as old as John. Find their total age 4 years ago ?

(A) 23p - 4   (B) 32p - 8   (C) 8p - 32   (D) 4p - 32

A cap costs n rupee and a belt and 2 caps but is short of $70. How much does he have ?

Express your answer in terms of n rupees.

(A) 3n   (B) 3n + 20   (C) 2n + 70   (D) n + 70

500 books are to be distributed unevenly to a certain number of libraries. Each library however, must not get more than 15 books. How many libraries, at least, will get the same number of books ?

(A) 4   (B) 5   (C) 33   (D) 45

Last year, the ratio of the number of girls to the number of boys in the table tennis CCA was 4 : 7. This year, 18 girls joined the club and the number of girls joined the club and the number of girls and boys become the same. How many pupils were in the club this year ?

(A) 84   (B) 42   (C) 74   (D) 75

The model of a bus is made using a scale of 1:20. This means that 20 cm of the actual bus is represented by 1 cm of the model. If the length of actual bus is 12 m, calculate the length of the model. Express your answer in centimeters.

(A)   40 cm   (B) 60 cm   (C) 50 cm   (D) 70 cm

A delivery truck delivers goods from Town A to town B. It can travel at 90 km/h when it is empty but only at 60 km/h when it is loaded with goods. Find the distance between two towns if it can cover 6 trips in 12 hours.
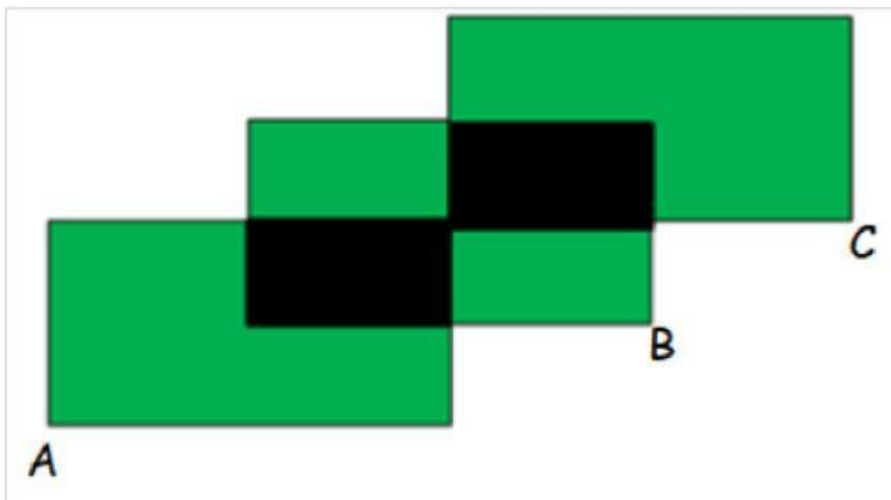
(A) 48 km (B) 36 km (C) 72 km (D) 12 km

There were 4960 people at the carnival. The ratio of the number of men to the number of women was 5 : 6, while the ratio of the number of women to the number of children was 2 : 3. Some people joined the carnival and some people left. After that there were 5208 people at the carnival. The ratio of the number of men to the number women to the number of children then becomes 1 : 2 : 5. What was the increase in the number of children ?

(A) 1023   (B) 845   (C) 948   (D) 1100

The figure shown below 3 identical rectangles A, B and C and 2 areas shaded in black are the same size.

Given that 2/5 of rectangle A is shaded in black, what is the ratio of the shaded areas to the area of the whole figure ?

(A) 2/15   (B) 4/15   (C) 4/7   (D) 4/11

The total cost of 2 similar bags, 3 wallets and 4 belts is $1188. A bag cost thrice as much as a wallet and a wallet costs twice as much as a belt. How much will Ted have to pay for a bag, a wallet and a belt?

(A) 54   (B) 486   (C) 1188   (D) 542

At the beginning of a swimming camp, the number of boys was 5 times the number of girls. After 144 boys left the camp, there were twice as many girls as boys. What was the total number of children at the beginning of the camp?

   (A)   175   (B) 158   (C) 182   (D) 192

7/10 of the boys who participated in a marathon race were Chinese. The rest of the boys were made up of Eurasians and Malays in the ratio 5:7 respectively. There were 756 more Chinese than Malay boys. Find the total number of boys who participated in the marathon race.
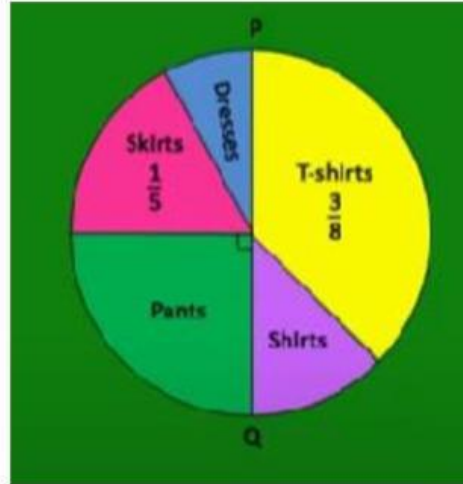
   (A)   1420   (B) 1440   (C) 1240   (D) 1140

A stereo listed for $350 is on sale for 20% off the list price. The sales tax is 6%. What price does a customer pay for the stereo if she buys it on sale?

_____

The ratio of the number of marbles in box A to the number of marbles in box B is

3 : 5.

If 1/3 of the marbles in Box A are transferred to Box B and then 1/3 of the marbles in Box B is transferred to Box A, what will be the ratio of the number of marbles in Box A to the number of marbles in Box B ?

(A) 2 : 1   (B) 1 : 1   (C) 1 : 3   (D) 2 : 3

A clothing merchant 3840 pieces of clothing of 5 types. The pie chart below represents what fraction of the clothing are of each type. PQ is the diameter of the circle on the pie chart.

1) How many shirts does the clothing merchant has ?

_____

2) What percent of clothing are dresses ?

_____%

3) How many more skirts are there than the dresses ? _____

4) How many percent of clothing are pants and skirts ?

_____

A rectangular juice dispenser has a base area of 450 cm² and a height of 25 cm. Gale adds syrup and water in the ratio 1:3 to the dispenser to make a beverage. If he uses 6.75 liters of water, what percentage of the dispenser will be filled when the beverage is made?

_____%