Construction of Quadrilaterals

1. Construct a parallelogram ABCD, given that

   AB = 4 cm, Ac = 6 cm and BD = 7 cm

2. Construct a rhombus given that $l_1 = 9$ cm and $l_2 = 6.8$ cm

3. Construct a square whose diagonal is 7 cm

4. Construct a quadrilateral PQRS, given that PQ = 6.5 cm, QR = 4 cm,
   $\angle Q = 90^0 = \angle S$ and $\angle R = 120^0$

5. Construct an isosceles trapezium ABCD, AB $\parallel$ DC, AB = 4.7 cm
   $\angle A = 120^0$ and AD = 4 cm

Compound Interest

1. Find the compound interest on Rs. 12,000 for 2 years @ 5% p.a.,

   compounded annally.

2. Find the simple interest and the compound interest on Rs. 5000 at the rate of 10% p.a.
   for 3 years.

3. Find the amount and the compound interest if P = Rs. 5120,

   R = $12\frac{1}{2}$ % p.a. and Time = 3 years.

4. The population of a village in 20,000 if the rate of growth of the population is 9%
   p.a. find the population after 2 years.

5. The bacteria in a petridish grow @ 5% per hour. If the count of the
   bacteria now is 8000, how much will it be after 3 hours ?

ANSWERS :

1. Rs. 1230   2 Rs. 1500, Rs. 1655

3. Rs. 7290 ,   Rs. 2170   4. 23762   5. 9261

Direct and Inverse Variation

1. The bus fare for 112 km is Rs. 728. How much will be the fare
   for 240 km ?

2. A group of 7 people had enough food for a month. A few more people joined them
   and the food lasted only for 21 days. How many people joined?

3.   A car travels 132 km on 11 litres of petrol. How far will it travel in 16.5 litres of petrol ?

4.   A car travelling at a speed of 60 km/h can cover a certain distance in 2 hours 20 minutes. If the speed was 10km/h more, how long would it take to cover the same distance ?

5.   Radhika types 270 words in 15 minutes. How many words would she type in 40 minutes ?

6.   A tap fills a tank in 3 hours and another tap can fill it in 6 hours. If both taps are opened together, how long will it take to fill the tank ?

7.   Convert : i) 90 km/h into m/sec   ii) 15 m/sec into   km/h

ANSWERS :

| 1. Rs. 1560 | 2. 3 people | 3. 198 km | 4. 2 hours |
| 5. 720 words | 6. 2 hours | 7. i) 25 m/sec | ii) 54 km/h |