

Construction of Quadrilaterals

1. Construct a parallelogram ABCD, given that
 $AB = 4 \text{ cm}$, $AC = 6 \text{ cm}$ and $BD = 7 \text{ cm}$
2. Construct a rhombus given that $l_1 = 9 \text{ cm}$ and $l_2 = 6.8 \text{ cm}$
3. Construct a square whose diagonal is 7 cm
4. Construct a quadrilateral PQRS, given that $PQ = 6.5 \text{ cm}$, $QR = 4 \text{ cm}$,
 $\angle Q = 90^\circ = \angle S$ and $\angle R = 120^\circ$
5. Construct an isosceles trapezium ABCD, $AB \parallel DC$, $AB = 4.7 \text{ cm}$
 $\angle A = 120^\circ$ and $AD = 4 \text{ cm}$

Compound Interest

1. Find the compound interest on Rs. 12,000 for 2 years @ 5% p.a.,
 compounded annually.
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 $P = \text{Rs. } 5120$,
 $R = 12\frac{1}{2}\%$ p.a. and Time = 3 years.
4. The population of a village is 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 :

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| 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?

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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 :

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| 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 |