DIRECT & INVERSE PROPORTION

Worksheet 4

EVERY 'NO' BRINGS YOU CLOSER TO A 'YES.

1. A steamer goes downstream and covers the distance between two ports in 4 hours while it covers the same distance upstream in 5 hours. If the speed of the stream is 2 km/h. find the speed of the steamer in still water.

A. 16 KMPH   B. 17 KMPH   C. 18 KMPH   D. 20 KMPH

2. The speed of a metro train is 54 km/hr excluding stoppage time and including stoppage, the speed is 45 km/hr then for how many minutes does it stop per hour?

A. 9   B. 10   C. 20   D. 11

3. A solution of 150 litres contains 60% of milk and the rest water. How much water must be added to the above solution such that the resulting mixture contains 50% of water (in Litres) ?

A. 60   B. 80   C. 20   D. 30

4. Two pipes A and B can fill a tank in 36 hours and 45 hours respectively. If both the pipes are opened simultaneously, how much time will be taken to fill the tank?

A. 20 hours   B. 18 hours   C. 25 hours   D. 19 hours

5. A mixture contains milk and water in the ratio 5:1. On adding 5 litres of water, the ratio of milk to water becomes 5:2. Find the quantity of milk in the original mixture.

A. 16 litres   B. 22.75 litres   C. 25 litres   D. 32.5 litres

6. A train 270 m long is moving with a speed of 25 km/hr. In what time will it cross a man coming from the opposite direction with a speed of 2 km/hr in which the train is moving?

A. 36 sec   B. 32 sec   C. 28 sec   D. 24 sec

7. Read the statements carefully and select the correct option.

Statement-1 : The amount of extension in an elastic spring varies directly as the weight hung on it. If a weight of 150 gm produces an extension of 2.9 cm, then the weight that would produce an extension of 17.4 cm is 900 gm.

Statement-2 : x and y vary directly means if x increases then y decreases.

A. Both Statement – 1 and Statement – 2 are true.

B. Both Statement – 1 and Statement – 2 are false.

C. Statement – 1 is false but Statement – 2 is true.

D. Statement-1 is true but Statement-2 is false.

scroll down for Answer key

8. Manpreet took part in an interschool race competition.

He cycled 2.7 Km, ran for $\frac{2}{3}$ hour and walked the remaining 500 m of the race. If the total distance of the race was 12 km, then find his running speed.
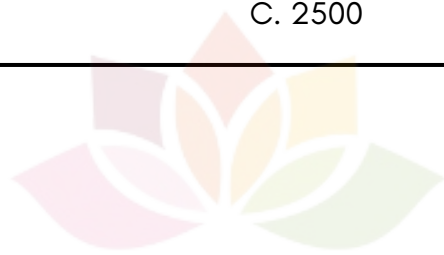
A. 13.2 km/hr　　　　B. 12 km/hr　　　　C. 7.5 km/hr　　　　D. 8.8 km/hr

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9. The results of a random survey showed that 22 out of 75 people are suffering from viral fever. Which is the best prediction of the total number of people suffering from fever, if there are 3000 people in a village?

A. 2500　　　　B. 500　　　　C. 900　　　　D. 2000

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10. 3500 people in a village had enough food for 25 days. But some people were transferred to another village and the food lasted for 35 days. How many villagers were transferred?

A. 1500　　　　B. 1000　　　　C. 2500　　　　D. 1800

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Answer Key

1. C
2. B
3. D
4. A
5. C
6. A
7. D
8. A
9. C
10. A