

Subject: Maths

Topic: Inverse (Indirect) Proportion

Levels: Basic, Intermediate, Advanced

Level: Basic

1. If 5 workers take 4 hours to clean a park, will 10 workers take more or less time? ?
2. A bag of rice lasts 10 days for 4 people. How many days will it last for 8 people? ?
3. If the speed of a car increases, does the time taken to reach Mumbai increase or decrease? ?
4. 6 pens cost ₹60. If the price per pen doubles, how many pens can you buy with ₹60? ?
5. 12 students can share a box of sweets such that each gets 2. If there are 24 students, each gets _____ sweets.
6. A water tank is filled by 3 taps in 60 minutes. How long will 1 tap take to fill it? ?
7. If 2 people can paint a wall in 3 days, how many people are needed to finish it in 1 day? ?
8. A hostel has food for 20 students for 30 days. If 20 more students join, the food lasts _____ days.
9. If a cycle travels at 10 km/h and takes 2 hours, how long will it take at 20 km/h? ?
10. More workers on a project means _____ (more/less) time to complete it. ?

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Level: Intermediate

1. A farmer has enough grain to feed 20 cows for 6 days. How long would the grain last for 30 cows? ?
2. A car travels at 60 km/h and reaches Delhi in 4 hours. At what speed must it travel to reach in 3 hours? ?
3. In a camp, there is food for 100 people for 20 days. After 5 days, 25 people leave. How long will the remaining food last? ?
4. If 15 men can dig a trench in 8 hours, how many men can dig the same trench in 6 hours? ?
5. A book has 200 pages with 30 lines per page. If a new edition has 40 lines per page, how many pages will it have? ?
6. A school has 8 periods a day of 45 minutes each. If the school has 9 periods, how long is each period? ?
7. A contractor employs 30 men to build a wall in 12 days. To finish it in 9 days, how many extra men are needed? ?
8. If y varies inversely as x , and $y = 10$ when $x = 2$, find y when $x = 5$. (Formula: $x_1 y_1 = x_2 y_2$) ?
9. 6 pipes fill a tank in 1 hour 20 minutes. How long will 5 pipes of the same type take? ?
10. If the cost of 1 kg of apples is ₹180, and you have a fixed budget, buying more apples means the price per kg was _____. ?

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1. A garrison of 500 men had provisions for 24 days. A reinforcement of 300 men arrives. For how many days will the food last now? ?
2. If 12 machines can produce a batch of shirts in 15 days, how many machines are needed to produce the same batch in 10 days? ?
3. Two variables x and y are in inverse proportion. If x increases by 25%, by what percentage does y decrease? ²
4. A group of workers can build a bridge in 40 days. If 8 workers are absent, the work takes 50 days. Find the original number of workers. ?
5. A plane flies at ? = 500 km/h to reach a destination in 2.4 hours. To reach in 2 hours, calculate the required speed. ?
6. If 7 taps fill a reservoir in 36 minutes, how many extra taps are needed to fill it in 21 minutes? ?
7. A packet of biscuits is distributed among 24 children, each getting 5 biscuits. If the number of children is reduced by 4, how many biscuits does each get? ?
8. In a printing press, 10 machines can print a newspaper in 4 hours. If 2 machines break down, find the time taken by the rest. ?
9. A car takes 2 hours to cover a distance at 60 km/h. How much time will it save if its speed is increased to 80 km/h? ?
10. Solve for ?: If 15 workers build a fence in 48 hours, how many workers are required to do the same work in 30 hours? ?