Mathematics

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Board – ICSE	Class –VIII	Topic – Direct and Inverse Variation

1. If one score oranges cost Rs .45, how many oranges can be bought for Rs.72?
2. If the wages of 15 workers for 6 days are Rs. 9450, find the wages of 19 workers for 5 days.
3. 6 oxen or 8 cows can graze a field in 28 days. How long would 9 oxen and 2 cows take to graze the same field?
4. 7 men can complete a work in 52 days. In how many days will 13 men finish the same work?
5. A truck covers a particular distance in 3 hours with the speed of 60 miles per hour. If the speed is increased by 30 miles per hour, find the time taken by the truck to cover the same distance.
6. If the cost of 25 notebooks is Rs 50, then find the cost of 20 such notebooks?
7. 16 men can build a wall in 56 hours. How many men will be required to do the same work in 32 hours?
8. If 24 painters working for 7 hours a day, for painting a house in 16 days. How many painters are required working for 8 hours a day will finish painting the same house in 12 days?
9. A and B, working together can finish a piece of work in 6 days, while A alone can do it in 9 days. How much time will B alone take to finish it?
10. A, B and C can do a piece of work in 8 days, 12 days and 15 days respectively. How long will they take to finish it if they work together?
11. Pipe A can fill a cistern in 6 hours and pipe B can fill it in 8 hours. Both the pipes are opened and after two hours, pipe A is closed. How much time will B take to fill the remaining part of the tank?
12. A tap A can fill a cistern in 4 hours and the tap B can empty the full cistern in 6 hours. If both the taps are opened together in the empty cistern, in how much time will the cistern be filled up?
13. A cistern can be filled by two taps A and B in 12 hours and 16 hours respectively. The full cistern can be emptied by a third tap C in 8 hours. If all the taps are turned on at the same time, in how much time will the empty cistern be filled completely?
14. A cistern can be filled by one tap in 5 hours and by another in 4 hours. How long will it take to fill if both the taps are opened simultaneously?

Answer

1. The number of oranges bought for Rs. 72 is 32.
2. The wages of 19 workers for 5 days = Rs.9975.
3. 9 oxen and 2 cows can graze the field in 16 days.
4. 13 men can complete the work in 28 days
5. If the speed is increased by 30 mph, time taken by the truck is 2 hours.
6. Cost of 20 note books =Rs 40
7. In 32 hours, the wall is built by 28 men.
8. 28 painters working for 8 hours a day will finish the same work in 12 days.
9. 18 days
10. $3\frac{7}{11}\ days$
11. $3\frac{1}{3} hours$
12. The tank will fill the cistern = 12 hours.
13. Time taken by (A + B + C) to fill the cistern = 48 hours.
14. Time taken by (first tap + second tap) to fill the cistern = $\frac{20}{9}$ hours.