

Class - VIII (Mathematics)
 Chapter - 10 (Direct and Inverse Variations)

Ex - 10(A)

1. 1 dozen = 12 toys.

Cost of 40 toys is = ₹ 1024

∴ " " 1 toy is = ₹ $\frac{1024}{40}$

∴ " " 12 toys = ₹ $\frac{1024 \times 12}{40} = ₹ \frac{3072}{10} = ₹ 307.2$ (Ans)

3. By ₹ 120 pencils can be bought = 50

∴ " ₹ 1 " " " " = $\frac{50}{120}$

∴ " ₹ 108 " " " " = $\frac{50 \times 108}{120} = 45$ pencils. (Ans)

5. In 7 days a labourer earns ₹ 784

∴ In 1 day " " " ₹ $\frac{784}{7}$

∴ In 15 days " " " ₹ $\frac{784 \times 15}{7} = ₹ 1680$ (Ans)

7. In 36 hours a work is done by 15 men

∴ " 1 hour " " " " (15 × 36) men

∴ In 20 hours " " " " $\left(\frac{15 \times 36}{20}\right)$ men = 27 men.

9. ~~At 65 kmph~~

In 48 minutes a journey is completed at a speed 65 km/hr

∴ In 1 " " " " " " " (65 × 48) "

∴ In 40 " " " " " " " $\frac{65 \times 48}{40}$

= 78 km/hr. (Ans)

11. 5 men earns ₹ 700 per day | 7 women earn ₹ 700 per day
 ∴ 1 man " ₹ $\frac{700}{5} = ₹ 140$ per day | ∴ 1 woman " ₹ $\frac{700}{7} = ₹ 100$ " "

∴ 7 men and 11 women together earn = ₹ $(7 \times 140) + (11 \times 100)$
 = ₹ $(980 + 1100) = ₹ 2080$ (Ans)

12. In 15 days ₹ 9000 is earned by 5 labourers.

∴ " 1 day ₹ 9000 is earned by (5×15) "

∴ " 8 days ₹ 9000 is " " $\left(\frac{5 \times 15}{8}\right)$ "

∴ " 8 days ₹ 1 is " "

∴ " 8 " ₹ 6720 " " " $\left(\frac{5 \times 15}{8 \times 9000}\right)$ "

∴ " 8 " ₹ 6720 " " " $\left(\frac{8 \times 15 \times 6720}{8 \times 9000}\right)$ labourers
 $\frac{847}{60}$

13. A fort had provisions for 450 men for 80 days. = 7 labourers. (Ans)

After 10 days 450 men had provisions for $(80 - 10) = 70$ days

∴ 1 man " " " (70×450) days

∴ $(450 + 50) = 500$ men " " " $\frac{70 \times 450}{500} = 63$ days. (Ans)

15. 7 workers working 6 hours a day can build a wall in 12 days

∴ 1 worker " 6 " " " " " " in (12×7) "

∴ 3 workers " 6 hours " " " " " " in $\left(\frac{12 \times 7}{3}\right)$ "

∴ 3 " " 1 hour " " " " " " in $\left(\frac{12 \times 7 \times 6}{3}\right)$ "

∴ 3 workers working 8 hours a day can build a wall in $\frac{12 \times 7 \times 6}{8 \times 8} = 21$ days. (Ans)