# 7 DIRECT AND INVERSE VARIATION

**Q1. Shruti makes a chart in 2 hours. How much work will be done by her in:**

a. 20 minutes?

Work done: _____

b. 30 minutes?

Work done: _____

c. 80 minutes?

Work done: _____

**Q2. 5 men or 8 women can eat 1 kg rice per day. How much rice will be needed to feed:**

a. 3 men for 2 days?

Answer: _____

b. 6 women for 3 days?

Answer: _____

**Q3. If 15 typists type a document in 6 days, how many days will 9 typists take to type the same document?**

Answer: _____

**Q4. Shravan colours and polishes a clay pot in 20 days. Kunal takes 25 days to complete the same work. How many days will both of them together take to colour and polish one clay pot?**

Answer: _____

**Q5. A and B together finish a work in 4 days. If A alone can finish the work in 5 days, find in how many days will B alone finish the same work? How fast is A as compared to B?**

B alone will take ____ days.

A is _____ times faster than B.

**Q6. In a salon, 14 men send 20 trucks of shampoo in 12 days. If 4 more men join after the fifth day, in how many days can they send the 20 trucks?**

Answer: _____

**Q7. A, B and C alone can polish the furniture of a house in 10 days, 8 days and 15 days respectively. If all of them work together for 2 days, after which A leaves, how much time will B and C take to polish the remaining furniture?**

Answer: _____

**Q8. Two pumps A and B can separately fill a gas chamber in 30 minutes and 40 minutes respectively. But because of a leakage in the chamber, the chamber is getting emptied within 50 minutes. How much time will it take to fill the chamber, if the leakage is not fixed and both the pumps work simultaneously? Also, find the time taken after fixing the leakage.**

Time taken when leakage is not fixed : _____

Time taken after fixing the leakage : _____

**Q9. A, B and C together can do a work in 3 days. A alone can do it in 8 days while A and C can do it in 5 days. In how many days will A and B do the same work?**

Answer: _____

**Q10. Pipes A and B together can fill a tank in 25 minutes. B alone can fill one–fourth of the tank in 15 minutes. In how much time can A alone fill the same tank?**

Answer: _____

# Answers

1. a. $\frac{1}{6}$; b. $\frac{1}{4}$; c. $\frac{2}{4}$
2. a. 1 kg 200 gm; b. 2 kg 250 gm
3. 10 days
4. $11\frac{1}{9}$ days
5. 20 days; A is 4 times faster than B
6. $10\frac{4}{9}$ days
7. $2\frac{4}{23}$ days
8. $26\frac{2}{23}$ minutes; $17\frac{1}{7}$ minutes
9. $3\frac{27}{31}$ days
10. $42\frac{6}{7}$ minutes