

$$= 13 : 14 : 10$$

$$\text{B's share} = \text{Rs.} \left(7030 \times \frac{14}{37} \right) = \text{Rs.} 2660$$

Q37. Two stations A and B are 110 km apart on a straight line. One train starts from A at 7 a.m. and travels towards B at 20 kmph. Another train starts from B at 8 a.m. and travels towards A at a speed of 25 kmph. At what time will they meet?

- A. 9 a.m.
- B. 10 a.m.
- C. 10.30 a.m.
- D. 11 a.m.

Answer: B

Explanation:

Option B is correct.

Suppose they meet 'h' hours after 7 a.m.

Distance covered by A in h hours = 20h km.

Distance covered by B in (h - 1) hours = 25(h - 1) km.

Therefore $20h + 25(h - 1) = 110$

$$\Rightarrow 45h = 135$$

$$\Rightarrow h = 3.$$

So, they meet at 10 a.m.

Q38. A bag contains 15 red balls and 20 black balls. Each ball is numbered either 1 or 2 or 3. 20% of the red balls are numbered 1 and 40% of them are numbered 3. Similarly, among the black balls, 45% are numbered 2 and 30% are numbered 3. A boy picks a ball at random. He wins if the ball is red and numbered 3 or if it is black and numbered 1 or 2. What are the chances of his winning?

- A. $\frac{1}{2}$
- B. $\frac{4}{7}$
- C. $\frac{5}{9}$
- D. $\frac{12}{13}$

Answer: B

Explanation:

Option B is correct.

Total number of balls in the bag = 15 red + 20 black = 35