

So, required number is  $\left(\frac{3}{5} \times 255\right) = 153$

**Q.34)** A Salesman charges sales tax of  $x\%$  up to Rs.3,000 and above it he charges  $y\%$ . A customer pays a total tax of Rs 180, when he purchases goods worth Rs. 7,000 and he pays the total tax of Rs. 420 for the goods worth Rs. 15,000. The value of  $x$  and  $y$  is:

- a) 4, 6
- b) 2, 3
- c) 1, 4
- d) 2, 4

**Ans) b**

**Exp)**  $\frac{3000 \times x}{100} + \frac{4000 \times y}{100} = 180 \Rightarrow 3x + 4y = 18 \dots\dots\dots (1)$

$\frac{3000 \times x}{100} + \frac{12000 \times y}{100} = 420 \Rightarrow 3x + 12y = 42 \dots\dots\dots (2)$

Solving (1) and (2) we get  $x = 2, y = 3$

**Q.35)** Find % change in the breadth of a rectangle if the length of a rectangle is doubled and the area remains fixed.

- a)  $66\frac{2}{3}\%$
- b) 50%
- c) 100%
- d) 200%

**Ans) b**

**Exp)** Area of rectangle =  $length \times breadth$  (fixed)

% change in breadth =  $\frac{\% \text{ change in length}}{100 + \% \text{ change in length}} \times 100 = \frac{100}{200} \times 100 = 50\%$

**Directions ( Q.36 – Q.38 ):** Eight persons M through T are standing in such a way that O is 20 m apart from N towards West, N is 30 m South with respect to M. M is 40 m towards West with respect to Q. P is 50 m towards South with respect to Q. R is 15 m apart from S towards North. T is 20 m towards East with respect to S. R is 40 m towards West with respect to P.

**Q.36)** In which direction is Q standing with respect to R?

- a) North-West
- b) North
- c) North-East
- d) Cannot be determined

**Ans) c**

**Exp)**

