

Exercise 10C

8% of
$$x = 6$$

$$\Rightarrow \left(\frac{8}{100} \times x\right) = 6$$

$$\therefore x = \left(\frac{6 \times 100}{8}\right) = 75$$

Hence, the required number is 75

Q16

Answer:

(c) 270
60% of 450 =
$$\left(\frac{60}{100} \times 450\right)$$

= $\left(\frac{3}{5} \times 450\right)$ = (3×90) = 270

Q17

Answer:

(d) Rs. 700

Let us assume that the original price of the chair is Rs x. Reduce percentage on the chair = 6% So, value of reduction on the chair = 6% of Rs. x

Reduced price of the chair = Rs
$$\left(\frac{6}{100} \times x\right)$$
 = Rs $\left(\frac{3x}{50}\right)$
= Rs $\left(\frac{3x}{50}\right)$
= Rs $\left(\frac{50x-3x}{50}\right)$ = Rs $\left(\frac{47x}{50}\right)$

However, present price of the chair = Rs 658

Then, Rs
$$\left(\frac{47x}{50}\right)$$
 = Rs 658
 \Rightarrow Rs $\left(\frac{47x}{50}\right)$ = Rs 658
 \Rightarrow x = Rs $\left(\frac{658 \times 50}{47}\right)$ = Rs (14×50) = 700

Hence, the original price of the chair is Rs 700

Q18

Answer:

(b) 560

Let the total number of students be 100.

Then, number of boys = 70

: Number of girls = (100 - 70) = 30

Now, total number of students if there are 30 girls = 100
Total number of students if there are 240 girls = $\left(\frac{100}{30} \times 240\right) = 800$ \therefore Number of boys = (800 - 240) = 560

Hence, there are 560 boys in the school.

Answer:

(c)450

Let x be the number.

(11% of x) - (7% of x) = 18
⇒
$$\left(\frac{11x}{100} - \frac{7x}{100}\right) = 18$$

⇒ $\frac{4x}{100} = 18$
∴ $x = \left(\frac{18 \times 100}{4}\right) = (18 \times 25) = 450$

Hence, the required number is 450

Q20

Answer:

(a) 60

Let x be the number.

According to question, we have:

$$(35\% \text{ of } x) + 39 = x$$

$$\Rightarrow \left(\frac{35}{100} \times x\right) + 39 = x$$

$$\Rightarrow \left(\frac{7x}{20}\right) + 39 = x$$

$$\Rightarrow \left(x - \frac{7x}{20}\right) = 39$$

$$\Rightarrow \left(\frac{20x - 7x}{20}\right) = 39$$

$$\Rightarrow \left(\frac{13x}{20}\right) = 39$$

$$\therefore x = \left(\frac{39 \times 20}{13}\right) = 60$$

Hence, the required number is 60

Q21

Answer:

(c)500

Let x be the maximum marks.

Pass marks = (145 + 35) = 180

$$36\%$$
 of $x = 180$

$$\Rightarrow \left(\frac{36}{100} \times x\right) = 180$$

$$\Rightarrow \chi = \left(\frac{180 \times 100}{36}\right) = (5 \times 100) = 500$$

Hence, maximum marks = 500

Q22

Answer:

(d) 225

Let x be the number.

According to question, we have:

$$x - 40\%$$
 of $x = 135$

$$\Rightarrow \left(x - \frac{40x}{100}\right) = 135$$

$$\Rightarrow \left(\frac{100x - 40x}{100}\right) = 135$$

$$\Rightarrow \left(\frac{60x}{100}\right) = 135$$

$$\Rightarrow x = \left(\frac{135 \times 100}{60}\right) = 225$$

Hence, the required number is 225

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