

GSA Mathematics

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Exercise: Percentage.

Q: 30 is 20% of what number?

$$\frac{20}{100}(x) = 30$$

$$20x = 30 \times 100$$

$$x = \frac{3000}{20}$$

$$x = 150$$

Q: At the end of 2016 there were 5000 members of a certain rare breed of animal remaining in the world. It is predicted that their number will decrease by 12% each year. How many will be left at the end of 2020.

$$2016 - 2020 = 4 \text{ year}$$

$$\text{annual Decrease} = 12\%$$

$$= 12 \times 4$$

$$= 48\%$$

$$\text{members of animals} = 5000$$

$$\frac{48}{100}(5000) = ?$$

$$= 2400$$

How many will be
left at the end of 2020 = ?
= $5000 - 2400$

Answer = 2600

Q. A camera costs 180\$ in
a 10% sale. What was the
Pre-Sale Price?

Cost with 10% = 180 \$

Cost without 10% = ?

Solution

$$10\% \text{ of } 180 = \frac{10}{100} (180)$$

$$= 18$$

total Price without 10%.

$$\Rightarrow 180 + 18$$

$$= 198 \$$$

Q.

After fuel prices rose by
15% a family's electricity
bill was 1654. What
would the bill have been
without the price increase?

Solution:

electricity bill with 15%
increase = 1654

" " without 15% = 1654 - 15%

$$\frac{15}{100} (1654) = 248.1$$

$$\begin{aligned} \text{" without 15%} &\Rightarrow 1654 - 248.1 \\ &= 1399.9 \end{aligned}$$