

FINDING A PERCENTAGE CHANGE

To find a percentage change, use:

$$\text{percentage change} = \frac{\text{change}}{\text{original amount}} \times 100\%$$

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Example 21 Finding a percentage change

- a** The price of a mobile phone increases from \$250 to \$280. Find the percentage increase.
- b** The population of a town decreases from 3220 to 2985. Find the percentage decrease and round to 1 decimal place.

SOLUTION

a Increase = \$280 - \$250
= \$30

$$\begin{aligned}\text{Percentage increase} &= \frac{30}{250} \times \frac{100}{1}\% \\ &= 12\%\end{aligned}$$

b Decrease = 3220 - 2985
= 235

$$\begin{aligned}\text{Percentage decrease} &= \frac{235}{3220} \times \frac{100}{1}\% \\ &= 7.3\% \text{ (to 1 d.p.)}\end{aligned}$$

EXPLANATION

First find the actual increase.

Divide the increase by the original amount and multiply by 100%.

First find the actual decrease.

Divide the decrease by the original population.
Round as indicated.