What is 15% of 80?

Using a Proportion:

$$\frac{\%}{100} = \frac{\text{part}}{\text{whole}}$$

$$\frac{15}{100} = \frac{x}{80}$$

$$\frac{\%}{100} = \frac{\text{IS}}{\text{OF}}$$

x = 12

Using a Percent Equation:

1. IS means =
2. Change % to a decimal
3. OF means multiply

What is 15% of 80?

$x = (.15) \cdot 80$

x = 12

72 is what percent of 95?

$$\frac{x}{100} = \frac{72}{95}$$

75.8%

$72 = x \cdot 95$

$.758 = x$

$\times 100$

75.8%

120 is 30% of what?

$$\frac{30}{100} = \frac{120}{x}$$

x = 400

$$\frac{120}{30} = \frac{(30)x}{30}$$

x = 400

The number of students increased 2.5% from last year.
Last year there was 8,400 students.

Find the number of students this year.

2.5% increase

$\frac{2.5}{100} = \frac{x}{8400}$

$x = 210$

$8400 + 210 = 8610$

or

$100\% + 2.5\% = 102.5\%$

$x = (1.025)(8400)$

$= 8610$

A store had a sale on refrigerators. They were marked 15% off. The refrigerator you want was priced at $740.
Find the sale price.

15% off

$\frac{15}{100} = \frac{x}{740}$

$x = 111$

$740 - 111 = 629$

or

$100\% - 15\% = 85\%$

$(.85)(740)$

$= 629$