8.7 Percent of a Number

Percent of multiplying

What percent of a number

75% of 20

Percent Equation

$p \cdot a = b$

$75\% \cdot 20$ Change 75% to frac or Dec.

$\frac{3}{4} \cdot 20^{5}$

15

7% of 23

$0.07 \cdot 23$

1.61

$\begin{array}{r} 23 \\ \times\ 0.07 \\ \hline 1.61 \end{array}$

Discounts

$25\% \cdot \$80$

$\frac{1}{4} \cdot 80^{20}$

Saving 20

New cost 60

70% off of $150

$0.7 \cdot 150$ $\quad 1\frac{7}{10} \cdot 150$

Discount 105

New cost 45

Sales Tax

$6.5\% \cdot 120$

$0.065 \cdot 120$

$\begin{array}{r} 120 \\ \times\ 0.065 \\ \hline 600 \\ 7200 \\ \hline 7800 \end{array}$ $\quad 7.80$

$6.5\% \cdot 100$

6.50

127.80

At a diner at the bill comes to $23.00

6.5% of 23.00
1.50
24.50

Tips 15%
3.68

$$\begin{array}{r} {}^{1}23 \\ \times\ 0.065 \\ \hline 115 \\ 1380 \\ \hline 1.495 \end{array}$$

$$\begin{array}{r} {}^{2}{}^{1}24.50 \\ \times\ 0.15 \\ \hline 12250 \\ 2450\,00 \\ \hline 3.6750 \end{array}$$

3.68

Simple Interest

Interest – amount earned
Principle – Initial savings
Rate – annual interest rate
Time – Time in years

$$I = Prt$$
$$= 100 \cdot 5\% \cdot 4$$
$$= 100\,(0.05)(4)$$
$$= 5(4)$$
$$= 20$$

(6 months)

$$I = 100(0.02)\left(\tfrac{1}{2}\right)$$
$$= 100(0.02)\left(\tfrac{1}{2}\right)$$
$$= 100\left(\tfrac{1}{2}\right)(0.02)$$
$$= 50\,(0.02)$$
$$= 1$$

0.9%

437 – 438
2 - 52
Skip 40