4- Understanding Percents
4.3 Percent of a Number

✱To calculate the percent of a number, write the percent as a __decimal__ and then __multiply__ by the number.

Example: 12% of 50

$\% \rightarrow dec$
$\div 100$

$12\% \div 100$
$= 0.12$

0.12×50
$= 6$

Determine the percent of each number:

a) 35% of 15

$35\% \div 100$
$= 0.35$

0.35×15
$= 5.25$

b) 230% of 35

$230\% \div 100$
2.30

2.30×35
$= 80.5$

c) 0.1% of 5000

$0.1\% \div 100$
0.001

0.001×5000
$= 5$

d) 2 ½ % of 20 000

$2.5 \div 100$
0.025

0.025×20000
500

What are two examples of when you'd need to find a percent of a number?

(Hint:) shopping, restaurants

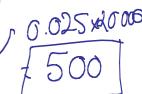1. Percentage discounts...
i.e. 30% off   how much you save!

2. Tipping- 15% is how much of you bill?

A survey showed that ¼% of 800 students use inline skates to get to school. How many of the 800 students use inline skate to get to school?

$\frac{1}{4}\%$

$1 \div 4$
$= 0.25\% \div 100$
$= 0.0025$

0.0025×800
$= 2$

Two people inline skate to school.

2.) 30 ¾ % of 400 students surveyed said they own a cell phone. How many of the students own a cell phone?

30($\frac{3}{4}$)% ← change to decimal%

$3 \div 4 = 0.75$

$30.75\% \div 100$

$\underline{0.3075}$

0.3075×400

$= 123$

123 students have cell phones.

Adele invested $40.12 in a savings plan at the beginning of the year. By the end of the year her investment was worth 120% of its original value. How much was her investment worth, to the nearest cent?

$120\% \div 100$

1.20

↳ $1.20 \times \$40.12$

$= 48.144$

Her final investment is worth $48.14 after 1 year.

Determine the percent of each number:

a) 160% of $53.27

$160\% \div 100$

$= 1.60$

1.60×53.27

$= \underline{85.232}$

$\boxed{\$85.23}$

b) ¾ % of 135

$3 \div 4 = 0.75\%$

$= 0.75\% \div 100$

$= 0.0075$

$\underline{0.0075 \times 135}$

$\boxed{= 1.0125}$

c) 55 $\frac{5}{8}$ % of 500

$5 \div 8 = 0.625$

$55.625\% \div 100$

$= 0.55625$

0.55625×500

$\boxed{= 278.125}$