

PERCENTS

A percentage is a part per _____

example:

$3\% \Rightarrow$ "3 per hundred"

$$\Rightarrow \frac{3}{100}$$

A percent is just another way of writing a fraction whose denominator is 100.

To change a percent to a decimal, we simply move the decimal point two places to the left since we are dividing by 100.

\hookrightarrow example 1: write each percent as a fraction and a decimal.

a) 4%

b) 17%

c) 35%

d) 100%

e) 125%

f) 0.4%

To change a decimal to a percent,
we simply move the decimal point
two places to the right since we
are multiplying by 100.

↳ example 2:

Write each value as a percent:

a) 0.50

b) 0.31

c) 1.49

d) 0.007

↳ example 3:

Write each fraction as a percent.
Round to the nearest tenth of
a percent.

a) $\frac{3}{4}$

First we must convert the fraction
to a decimal.

$$b) \frac{7}{8}$$

$$c) \frac{21}{43}$$

Note: TO SOLVE PROBLEMS like part c in example 3, use a calculator to perform the division and round to at least 4 decimal places. Then convert your answer to a percentage and round to the nearest tenth.

NOTE: MULTIPLYING AND DIVIDING BY POWERS OF 10:

If you multiply by 10, you are making the number larger so we move the decimal point one place to the right since 10 has one zero.

example: $3 \cdot 10 =$

$$0.91 \cdot 10 =$$

$$0.04 \cdot 10 =$$

If you divide by 10, you are making the number smaller so we move the decimal point one place to the left since 10 has one zero.

example: $3 \div 10 =$

$$0.91 \div 10 =$$

$$0.04 \div 10 =$$

NOW TRY these:

a) $(4.5)(100)$

b) $17.3 \div 10$

$$c) 32.5 \div 100$$

$$d) (0.07)(1,000)$$

$$e) (10,000)(3.971)$$

$$f) 0.1 \div 100$$

$$g) 0.02 \div 10,000$$

$$h) (0.0003)(10,000)$$

PERCENTS practice problems

Complete the table below.

| Percent | (Reduced) FRACTION | Decimal |
|---------|-----------------------|---------|
| 55% | | |
| | $\frac{1}{4}$ | |
| | | 0.72 |
| 108% | | |
| | $\frac{301}{100}$ | |
| | | 2 |