

MPM 1D Unit 1 Handout #6
Calculations with Percent

Date:

Name:

Remember that a percent represents a part of 100. We can express percentage values as decimals (divide by 100) and fractions (over 100, reduce to lowest terms) as well.

When you are doing real life problems, make sure that your answers make sense! If they don't, rethink your approach.

Part 1: Do the Math

1. Complete the following table:

Fraction	Decimal	Percent
$\frac{5}{8}$	0.625	62.5%
$\frac{57}{1000}$	0.057	5.7%
$\frac{6}{100} = \frac{3}{50}$	0.06	6%
$\frac{112}{100} = \frac{28}{25}$	1.12	112%
$\frac{1}{12}$	0.08 $\bar{3}$	8. $\bar{3}$ %
$\frac{463}{1000}$	0.403	40.3%

2. Calculate the indicated percent of each number. Show your work.

a. 75% of 80

$$= 0.75 \times 80$$

$$= 60$$

b. 3% of 410

$$= 0.03 \times 410$$

$$= 12.3$$

c. 1.78% of \$12000

$$= 0.0178 \times 12000$$

$$= \$213.60$$

d. 0.4% of 25

$$= 0.004 \times 25$$

$$= 0.1$$

e. 11% of 22.73

$$= 0.11 \times 22.73$$

$$= 2.5003$$

f. 13% of \$45.75

$$= 0.13 \times 45.75$$

$$= \$5.95$$

3. 12% of a number is 6.6. What is the number? Show your work.

$$6.6 \div 0.12 = 55$$

4. 115% of a number is 816.5. What is the number? Show your work.

$$816.5 \div 1.15 = 710$$

Part 2: Explain the Math

1. Write a brief point form note explaining how you were able to find the original number in questions 3 and 4 to help a friend that is struggling.

This will vary \rightarrow depends on how you tackled it!

2. Summarize (you can make an organizer, draw a picture, use words, etc.) how you convert between the various representations of percentage values.

• Use your note!
Decimal \leftrightarrow percent
Fraction \leftrightarrow percent

3. Explain how percent is related to ratios and fractions.

• part of 100, so fraction w/ denominator of 100