

# Math Unit 9: Study Guide

Name: \_\_\_\_\_

Test Date: \_\_\_\_\_

## Be able to:

- Multiply (\*) and Divide (/) Decimals by Whole Numbers

**Multiply Ex.**  $2 * 4.3 = \underline{\hspace{2cm}}$

Steps: 1. Estimate  $2 * 4 = 8$

2. Multiply as a Whole Number  $2 * 43$  (use lattice or partial product methods)

3. Use estimate to place decimal in answer  $86$  would have to be  $8.6$

So...  $2 * 4.3 = 8.6$

**Divide Ex.**  $43.8 / 3 = \underline{\hspace{2cm}}$

Steps: 1. Estimate  $44 / 2 = 22$

2. Divide as a Whole Number  $438 / 3$  (use partial quotient method)

3. Use estimate to place decimal in answer  $146$  would have to be  $14.6$

- Write Equivalent *Fractions, Decimals, & Percents*

Ex.	Fraction	Decimal	Percent
	$4/10$	0.4	40%
	$3/5$	0.60	60%

Try:  $\underline{\hspace{2cm}}$       0.9       $\underline{\hspace{2cm}}$

- Complete "Fraction of" & "Percent of" problems

Ex.  $1/4$  of 100 = 25                      50% of 500 = 250

$2/3$  of 60 = 40                          75% of 40 = 30

Try:  $4/5$  of 25 =  $\underline{\hspace{2cm}}$               40% of 200 =  $\underline{\hspace{2cm}}$

- Use a *calculator* to rename **fractions as decimals** and **fractions as percents**

fractions as decimals                      fractions as percents

Ex.  $\frac{3}{20}$        $3 / 20 = \underline{\hspace{2cm}}$                $\frac{3}{20}$        $3 / 20 \% = \underline{\hspace{2cm}}$       or       $3 / 20 * 100 = \underline{\hspace{2cm}}$

- Find the *area* and *perimeter* of polygons & *write number models* to show how you got the answers. (you need to be able to include the correct units)

Rectangle

$A = b * h$

Parallelogram

$A = b * h$

Triangle

$A = \frac{1}{2} (b * h)$  or  $A =$

- Insert parentheses into a number sentence to make it true

Ex.  $(100 - 60) / 2 = 20$               Try:  $20 + 30 * 3 = 110$