Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class period: \_\_\_\_

![MC900130271[2]]()

**Unit: Dimensional Analysis Answer Key**

**“One and Two Step Problems” – WS #1**

# **Directions:** Use dimensional analysis to perform the following calculations. Show K, U, and plan! Use correct sig figs and units!

1. How many cm are equal to 1.45 m?

$$1.45m x\frac{100cm}{1m}=145cm$$

1. How many kg are equal to 325 g?

$$325gx\frac{1kg}{1000g}=0.325kg$$

1. How many mL are equal to .0024 L?

$$0.0024L x\frac{1000mL}{1L}=2.4mL$$

1. How many km are equal to 1.55 x 104 m?

$$1.55x10^{4}m x \frac{1km}{1000m}=15.5km$$

1. How many mm are equal to 4.75 x 10-2 m?

$$4.75x10^{-2}m x \frac{1000mm}{1m}47.5mm$$

1. How many cg are equal to 0.459 kg?

$$0.459kg x \frac{1000g}{1kg}x\frac{100cg}{1g}45.900cg$$

1. How many km are equal to 5,995 dm?

$$5.995dm x \frac{1m}{10dm}x\frac{1km}{1000m}=0.5995km$$

1. How many mg are equal to 450 μg?

$$450ug x \frac{1g}{1,000,000ug}x\frac{1000mg}{1g}=0.45mg$$

1. How many mm are equal to 0.003 dm?

$$0.003dm x\frac{1m}{1dm}x\frac{1000mm}{1m}=0.3mm$$

1. How many ML are equal to 4.567 x 104 mL?

$$4.567 x 10^{4}mL x \frac{1L}{1000mL}x \frac{1ML}{1,000,000L}=4.567 x 10^{-5}ML$$