**Dimensional Analysis Practice Problems**

Solve for the new unit using dimensional analysis. Make sure you include the new unit in your answer. Answers can be in standard notation or scientific notation. Show your work! Good Luck ☺

1. Convert 0.56kg to mg.

0.56 kg x \_\_\_\_\_\_\_ g x \_\_\_\_\_\_\_ mg = \_\_\_\_\_\_\_\_\_\_ mg

kg g

2. Convert 2.0 in to mm. Hint: 1in = 2.54 cm

2.0 in x \_\_\_\_\_\_\_cm x \_\_\_\_\_\_\_\_\_ m x \_\_\_\_\_\_\_\_\_ mm = \_\_\_\_\_\_\_\_\_\_ mm

in cm m

3. Convert 500ft to m.

500 ft x \_\_\_\_\_\_\_ in x \_\_\_\_\_\_\_\_\_ cm x \_\_\_\_\_\_\_\_\_ m = \_\_\_\_\_\_\_\_\_\_ m

Ft in cm

4. Convert 3 weeks to minutes.

1. wk x \_\_\_\_\_\_\_\_\_\_\_\_\_ x \_\_\_\_\_\_\_\_\_\_\_\_\_ x \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = \_\_\_\_\_\_\_\_\_\_\_ min

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5. How many grams are in a sample that weighs 4.3 × 102 kilograms?

6. Convert 30 mL to liters.

7. How many centimeters are in 5.1 × 109 megameters?

8. Convert 6.1 × 10-4 kilograms into decigrams.

9. The average student is in class 330 minutes a day. Convert that into seconds per week.

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