

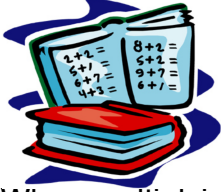
# ~ DIMENSIONAL ANALYSIS KEY NOTES ~

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

1. Calculate:  $3/5 \times 4/9 \times 7/8 = \underline{\quad} / \underline{\quad} = \underline{\quad}$  Circle the numerators. Underline the denominators.

2) To multiply fractions:



1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

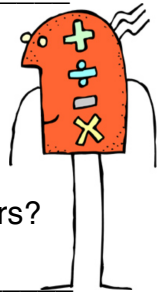
3) When multiplying fractions units cancel out when: \_\_\_\_\_

4) Define these terms:

Dimensional Analysis: \_\_\_\_\_

Conversion Factor: \_\_\_\_\_

List 6 examples of conversion factors:



5) What are the 5 steps in using dimensional analysis when converting 4567 m to kilometers?

Step 1: \_\_\_\_\_

Step 2: \_\_\_\_\_

Step 3: \_\_\_\_\_

Step 4: \_\_\_\_\_

Step 5: \_\_\_\_\_

Show your work for converting 4567 m to kilometers below:



6) What are the 5 steps in using DA when using multiple conversion factors?

Step 1: \_\_\_\_\_

Step 2: \_\_\_\_\_

Step 3: \_\_\_\_\_

Step 4: \_\_\_\_\_

Step 5: \_\_\_\_\_

Show your work for converting 1.567 cm to kilometers below:

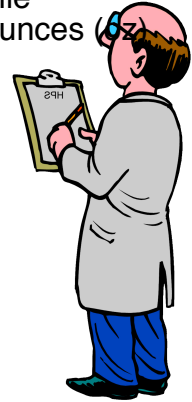
Use dimensional analysis to solve the following problems. Show your work and include units.

1.00 mile = 1.61 km  
1.00 kg = 2.20 lb  
1.00 quart = 946 mL

1.00 mile = 5280 feet  
16 oz = 1.0 lb  
1.00 foot = 12 inches  
**NO WORK OR NO UNITS = NO CREDIT!!!**

1.00 inch = 2.54 cm  
5280 ft. = 1 mile

1.0 quart = 32 fluid ounces



1. 485 meters to miles. Answer: \_\_\_\_\_  
DA Work:

2. 2500 cm to feet. Answer: \_\_\_\_\_  
DA Work:

3. 3.8 liters to quarts. Answer: \_\_\_\_\_  
DA Work:

4. 16 km to feet. Answer: \_\_\_\_\_  
DA Work:

5. 22.5 oz to kg Answer: \_\_\_\_\_  
DA Work:

6. 5565 mm to inches. Answer: \_\_\_\_\_  
DA Work:

7. 25 km to mm. Answer: \_\_\_\_\_  
DA Work:

## DIMENSIONAL ANALYSIS: METRIC CONVERSIONS

Name \_\_\_\_\_ pd. \_\_\_\_\_

Directions:

1. Use dimensional analysis to solve the following problems.
2. Show all your work, including units.
3. Cancel out units that appear in both the numerator and denominator.
4. Place your answer in the space provided.

\_\_\_\_\_ 1) How many milliliters are in 57.3 liters?

D.A. Work:

\_\_\_\_\_ 2) How many centimeters are in 3.44 meters?

D.A. Work:

\_\_\_\_\_ 3) How many milligrams are in 74 kilograms?

D.A. Work:

\_\_\_\_\_ 4) How many kiloliters are in 987 milliliters?

D.A. Work:

\_\_\_\_\_ 5) How many centigrams are in 67 milligrams?

D.A. Work: