

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

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

## Frequently used prefixes in the metric system

| <u>Prefix</u> | <u>Symbol</u> | <u>Expon. factor</u> | <u>Meaning</u> | <u>Example</u> |
|---------------|---------------|----------------------|----------------|----------------|
| kilo          | k             | $10^3$               | 1000           | 1 kg = 1000 g  |
| deci          | d             | $10^{-1}$            | 1/10           | 1 dm = 0.1 m   |
| centi         | c             | $10^{-2}$            | 1/100          | 1 cm = 0.01 m  |
| milli         | m             | $10^{-3}$            | 1/1000         | 1 mg = 0.001 g |

Underline the given information in each problem. Show all work and circle your answer.

1. How many kilograms are 245 grams of table salt?

2. How many seconds are in 37.5 minutes?

3. How many meters are in 0.760 kilometer?

4. Convert  $2.5 \times 10^2$  centimeters to meters. ( $2.5 \times 10^2 = 250$ )

5. Convert  $3.65 \times 10^{-4}$  meter to millimeters. ( $3.65 \times 10^{-4} = 0.000365$ )

6. What is the area of a piece of paper that is 6.0 cm long by 1.5 cm wide? Include the units in your answer.

Regents Chemistry: Conversions in the metric system, Table C.

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SHOW ALL WORK! **USE UNITS!** Express the answers in standard scientific notation.  
Circle your answers.

1. Convert 232 milliliters (ml) to liters (l).

2. How many millimeters (mm) are in 42 meters (m)?

3. Convert 0.055 kilograms (kg) to grams (g).

4. Convert 79800000 milligrams (mg) to grams (g).

5. How many centiliters are in 2.63 liters?