Converting Metric Units of Mass

How to convert a mass measurement from one metric unit to another:

Converting a mass from a smaller to a larger metric unit

6,000 grams = _____ kilograms

Think: If I measure the same mass using a larger unit, I will need a smaller number of units.

Operation: Divide.

You know 1,000 g = 1 kg.

Find 6,000 ÷ 1,000; 6,000 g = 6 kg

Converting a mass from a larger to a smaller metric unit

2 grams = _____ milligrams

Think: If I measure the same mass using a smaller unit, I will need a larger number of units.

Operation: Multiply.

You know 1 g = 1,000 mg.

Find 2 × 1,000; 2 g = 2,000 mg

### Relationships Between Metric Units of Mass

<table>
<thead>
<tr>
<th>Kilogram</th>
<th>Gram</th>
<th>Milligram</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 kg</td>
<td>1,000 g</td>
<td>1,000 mg</td>
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</tbody>
</table>

Convert each unit of measurement.

1. 72 g = _________ mg
2. 8,000 g = _________ kg
3. 2,000,000 mg = _________ kg
4. 2,340 kg = _______________ g

Compare. Use <, >, or =.

5. 4,000 mg  5 g
6. 64 kg  64,000 g
7. 3 kg  40,000 mg
8. 5,000 g  4 kg