

Name _____

period _____

Science Skills-8

Metric Conversion 1

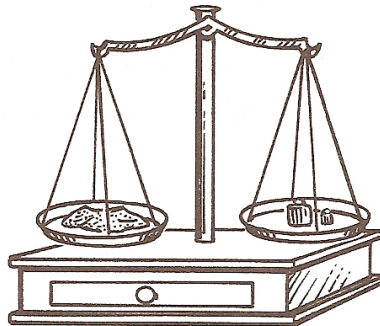
Metric Value Chart for Weight Measurements

Unit	Kilogram	Hectogram	Dekagram	Gram	Decigram	Centigram	Milligram
abbrev.	kg	hg	dkg	g	dg	cg	mg
value	1,000 g	100 g	10 g	1 g	0.1 g	0.01 g	0.001 g

The gram is the basic unit of **weight**. The metric units of weight used most often are the kilogram (kg), the gram (g), and the milligram (mg).

Convert the following:

- 20 kg = _____ g
- 7.5 g = _____ mg
- 500 kg = _____ g
- 10 g = _____ kg
- 700 kg = _____ g
- 500 g = _____ mg
- 100.5 g = _____ kg
- 10.5 g = _____ mg
- 150 g = _____ kg
- 50 g = _____ kg
- 5000 mg = _____ kg
- 75000 mg = _____ kg
- .001 kg = _____ mg
- .50 g = _____ mg
- 7.5 mg = _____ kg
- .15 kg = _____ mg
- 35 g = _____ mg
- .5 kg = _____ mg
- 42 kg = _____ g
- .003 kg = _____ mg
- 86 mg = _____ g
- .12 g = _____ mg
- 114 mg = _____ g
- 72 kg = _____ mg



1. A piece of steel bar measures 2 m in length, 3 cm in width, and 1 mm in thickness. Determine the weight in grams (g). (Use the formula $L \times W \times H$.) First convert to cubic centimeters then multiply by 7.849 which equals the weight of 1 cu. cm in grams (g) for steel.

_____ g

2. A block of pine wood measures 3 dm in length, 2 dm in width, and 1.5 dm in thickness. Determine the weight in grams (g). One cubic centimeter (cu. cm) of pine wood weighs .35 grams. Convert to centimeters before starting the solving process.

_____ g

3. A dump truck has a box that has approximately 2,679,120 cu. cm of space. What would a load of pine wood weigh in grams?

_____ g

4. A box containing 200 bolts weighs 300 grams. If 75 bolts are removed from the box, what do the remaining bolts weigh? Begin your solving process by determining what each bolt weighs.

_____ g

5. A box containing bolts weighs 2550 grams. Each bolt weighs 17g.

- a. How many bolts are in the box?
_____ bolts

- b. Remove 25 bolts. What is the remaining weight? _____ g

- c. Bolts cost 12¢ each. What is the cost of the full box of bolts?
\$ _____

