NAME _____

Lesson 8.1 Metric Conversions

Length	*Weight*	*Volume*
1 kilometer (k) = 1,000 meters (m)	1 kilogram (kg) = 1,000 grams (g)	1 kiloliter (kL) = 1,000 liters (L)
1 meter (m) = 0.001 kilometers (km)	1 gram (g) = 0.001 kilograms (kg)	1 liter (L) = 0.001 kiloliters (kL)
1 meter (m) = 100 centimeters (cm)	1 gram (g) = 100 centigrams (cg)	1 liter = 100 centiliters (cL)
1 centimeter (cm) = 0.01 meters (m)	1 centigram (cg) = 0.01 grams (g)	1 centiliter (cL) = 0.01 liters (L)
1 meter (m) = 1,000 millimeters (mm)	1 gram (g) = 1,000 milligrams (mg)	1 liter (L) = 1,000 milliliters (mL)
1 millimeter (mm) = 0.001 meter (m)	1 milligram (mg) = 0.001 gram (g)	1 milliliter (mL) = 0.001 liters (L)

3 m = _____ cm	6 g = _____ mg	4 kL = _____ L
1 m = 100 cm	1 g = 1,000 mg	1 kL = 1,000 L
3 m = (3 × 100) cm	6 g = (6 × 1,000) mg	4 kL = (4 × 1,000) L
3 m = 300 cm	6 g = 6,000 mg	4 kL = 4,000 L

Complete the following.

	a	b
1.	5 g = _____ mg	17,000,000 mg = _____ kg
2.	4,000 L = _____ kL	51,000 mL = _____ L
3.	600 mm = _____ cm	8 m = _____ mm
4.	4 kL = _____ mL	46,000 L = _____ kL
5.	42 m = _____ mm	12 km = _____ m
6.	2 g 150 mg = _____ mg	4 kg 200 g = _____ g

SHOW YOUR WORK

7. Duane has a pencil 7 centimeters long. Fred has a pencil 64 millimeters long. Whose pencil is longer, and how much longer is it?

_____ pencil is _____ millimeters longer.

7.

8. Pedro has a stack of coins that weighs 85 grams. Conner has a stack of coins that weighs 64,300 milligrams. Whose stack of coins weighs more? How much more?

_____ stack of coins weighs _____ milligrams more.

8.