In order to change values from one metric unit to another, it's important to understand the relationships between the prefixes used to show multiples and fractions of the base units of measurement. Since all the prefixes are powers of 10, you need only to move the decimal point to convert between metric units. The chart below can help you visualize these relationships.

kilo- 1000 10^3	**hecto-** 100 10^2	**deka-** 10 10^1	**no prefix** base 1	**deci-** 0.1 10^{-1}	**centi-** 0.01 10^{-2}	**milli-** 0.001 10^{-3}
kilometer (km) 1,000 m kilogram (kg) 1,000 g			meter (m) gram (g) liter (L)		centimeter (cm)	millimeter (mm) 0.001 m milligram (mg) 0.001 g milliliter (mL) 0.001 L

a. 2347 mg	= 2.347 g	n. 85 cm	= 0.85 m
b. 34927 cm	= 0.34927 km	o. 0.2 cm	= 2 mm
c. 0.0005 kg	= 0.5 g	p. 8 mm	= 0.8 cm
d. 5682 mL	= 5.682 L	q. 7800562 mm	= 7.800562 km
e. 0.2 cm	= 2 mm	r. 0.0065 kg	= 6.5 g
f. 93 mm	= 9.3 cm	s. 1000 mL	= 1 L
g. 0.00004 kg	= 40 mg	t. 1000 cm	= 10 m
h. 0.09 L	= 90 mL	u. 400 mm	= 40 cm
i. 15,000 g	= 15 kg	v. 350 mL	= 0.35 L
j. 7643 m	= 7.643 km	w. 1800 mL	= 1.8 L
k. 500 mg	= 0.5 g	x. 6400 m	= 6.4 km
l. 300 g	= 0.3 kg	y. 520 cm	= 5.2 m
m. 0.6 m	= 60 cm	z. 0.75 m	= 75 cm