

## Show Your Work!

1. 1 mL = _____ L	$\frac{1\text{mL}}{1} \times \frac{1\text{L}}{1000\text{mL}} = \frac{1}{1000}\text{L} = 0.001\text{L}$
2. 34 m = _____ cm	$\frac{34\text{ m}}{1} \times \frac{100\text{cm}}{1\text{m}} = \frac{3400}{1}\text{cm} = 3,400\text{ cm}$
3. 10 mg = _____ kg	$\frac{10\text{ mg}}{1} \times \frac{1\text{g}}{1,000\text{mg}} \times \frac{1\text{kg}}{1,000\text{g}} = \frac{10}{1,000,000}\text{kg} = 0.00001\text{kg}$
4. 500 mL = _____ $\mu\text{L}$	$\frac{500\text{ mL}}{1} \times \frac{1000\mu\text{L}}{1\text{mL}} = \frac{500,000}{1}\mu\text{L} = 500,000\mu\text{L}$
5. .52 g = _____ kg	$\frac{.52\text{ g}}{1} \times \frac{1\text{kg}}{1,000\text{g}} = \frac{.52\text{kg}}{1,000\text{g}} = 0.00052\text{ kg}$
6. .456 km = _____ cm	$\frac{0.456\text{ km}}{1} \times \frac{1,000\text{m}}{1\text{km}} \times \frac{100\text{cm}}{1\text{m}} = \frac{45600}{1}\text{cm} = 45,600\text{ cm}$
7. .3425 ML = _____ mL	$\frac{0.3425\text{ ML}}{1} \times \frac{1,000,000\text{ L}}{1\text{ML}} \times \frac{1,000\text{ mL}}{1\text{L}} = \frac{.3425 \times 1,000,000,000}{1}\text{mL} = 342,500,000\text{ mL}$
8. .5789 Mg (Mega) = _____ kg	$\frac{0.5789\text{ Mg}}{1} \times \frac{1,000\text{kg}}{1\text{Mg}} = 578.9\text{ kg}$
9. 10 L = _____ mL	$\frac{10\text{ L}}{1} \times \frac{1,000\text{mL}}{1\text{L}} = 10,000\text{mL}$
10. 50 mm = _____ km	$\frac{50\text{ mm}}{1} \times \frac{1\text{m}}{1,000\text{mm}} \times \frac{1\text{km}}{1,000\text{m}} = \frac{50}{1,000,000}\text{km} = 0.00005\text{ km}$
11. 2000 mg = _____ kg	$\frac{2,000\text{ mg}}{1} \times \frac{1\text{g}}{1,000\text{mg}} \times \frac{1\text{kg}}{1,000\text{g}} = \frac{2,000}{1,000,000}\text{kg} = 0.002\text{ kg}$
12. 5043 nm = _____ cm	$\frac{5,043\text{ nm}}{1} \times \frac{1\text{cm}}{10,000,000\text{nm}} = 0.0005043\text{cm}$
13. 2,000,000 mL = _____ L	$\frac{2,000,000\text{ mL}}{1} \times \frac{1\text{L}}{1,000\text{mL}} = \frac{2,000,000}{1,000}\text{L} = 2,000\text{ L}$
14. 345 kg = _____ Mg (Mega)	$\frac{345\text{ kg}}{1} \times \frac{1\text{Mg}}{1,000\text{kg}} = \frac{345}{1,000}\text{Mg} = 0.345\text{ Mg}$
15. 6879 cm = _____ mm	$\frac{6,879\text{ cm}}{1} \times \frac{10\text{ mm}}{1\text{cm}} = \frac{68,790}{1}\text{mm} = 68,790\text{ mm}$
16. 5000 g = _____ $\mu\text{g}$	$\frac{5,000\text{ g}}{1} \times \frac{1,000,000\mu\text{g}}{1\text{g}} = \frac{5,000,000,000}{1}\mu\text{g} = 5,000,000,000\mu\text{g}$
17. 100 L = _____ kL	$\frac{100\text{ L}}{1} \times \frac{1\text{kL}}{1,000\text{L}} = \frac{100}{1,000}\text{kL} = 0.1\text{kL}$

18. 896,599 $\mu\text{m}$ = _____ m	$\frac{896,599 \mu\text{m}}{1} \times \frac{1 \text{ m}}{1,000,000 \mu\text{m}} = \frac{896,599}{1,000,000} \text{ m} = 0.896599 \text{ m}$
19. 1000 ng = _____ cg	$\frac{1,000 \text{ ng}}{1} \times \frac{1 \text{ g}}{1,000,000,000 \text{ ng}} \times \frac{100 \text{ cg}}{\text{g}} = \frac{100,000}{1,000,000,000} \text{ cg} = \frac{1}{10,000} 0.0001 \text{ cg}$
20. 899 kL = _____ ML	$\frac{900 \text{ kL}}{1} \times \frac{1 \text{ ML}}{1,000 \text{ kL}} = \frac{900}{1,000} \text{ ML} = 0.9 \text{ ML}$
21. 4.8 L = _____ qts	$\frac{4.8 \text{ L}}{1} \times \frac{1.0567 \text{ quarts}}{1 \text{ L}} = \frac{5.07216}{1} \text{ quarts} = 5.1 \text{ quarts}$
22. 22 cu ft = _____ L	$\frac{22 \text{ cu ft}}{1} \times \frac{28.32 \text{ L}}{1 \text{ cu ft}} = \frac{623.04}{1} \text{ L} = 623 \text{ L}$
23. 6 pints = _____ mL	$\frac{6 \text{ pints}}{1} \times \frac{473 \text{ mL}}{1 \text{ pint}} = \frac{2,838}{1} \text{ mL} = 2,838 \text{ mL}$
24. 9.8 L = _____ gallons	$\frac{9.8 \text{ L}}{1} \times \frac{1 \text{ gal}}{3.785 \text{ L}} = \frac{9.8}{3.785} \text{ gal} = 2.59 \text{ gal}$
25. 69.8 in = _____ meters	$\frac{69.8 \text{ in}}{1} \times \frac{2.54 \text{ cm}}{1 \text{ in}} \times \frac{1 \text{ m}}{100 \text{ cm}} = \frac{177.3}{100} \text{ m} = 1.8 \text{ m}$
26. 65 cm = _____ inches	$\frac{65 \text{ cm}}{1} \times \frac{1 \text{ in}}{2.54 \text{ cm}} = \frac{65}{2.54} \text{ in} = 25.6 \text{ in}$
27. 88 miles = _____ km	$\frac{88 \text{ mi}}{1} \times \frac{1 \text{ km}}{0.621 \text{ mi}} = \frac{88}{0.621} \text{ km} = 142 \text{ km}$
28. 33 meters = _____ inches	$\frac{33 \text{ m}}{1} \times \frac{100 \text{ cm}}{1 \text{ m}} \times \frac{1 \text{ in}}{2.54 \text{ cm}} = \frac{3,300}{2.54} \text{ in} = 1,299 \text{ in}$
29. 20 inches = _____ cm	$\frac{20 \text{ in}}{1} \times \frac{2.54 \text{ cm}}{1 \text{ in}} = \frac{50.8}{1} \text{ cm} = 50.8 \text{ cm}$
30. 120 km = _____ miles	$\frac{120 \text{ km}}{1} \times \frac{0.621 \text{ mi}}{1 \text{ km}} = \frac{74.52}{1} \text{ mi} = 74.5 \text{ mi}$
31. 56 kg = _____ lbs	$\frac{56 \text{ kg}}{1} \times \frac{2.2 \text{ lb}}{1 \text{ kg}} = \frac{123.2}{1} \text{ lb} = 123 \text{ lb}$
32. 1293 g = _____ lbs	$\frac{1293 \text{ g}}{1} \times \frac{1 \text{ kg}}{1,000 \text{ g}} \times \frac{2.2 \text{ lb}}{1 \text{ kg}} = \frac{2844.6}{1,000} \text{ lb} = 2.8 \text{ lb}$
33. 160 lbs = _____ kg	$\frac{160 \text{ lb}}{1} \times \frac{1 \text{ kg}}{2.2 \text{ lb}} = \frac{160}{2.2} \text{ kg} = 72.7 \text{ kg}$
34. 8.4 oz = _____ gallons	$\frac{8.4 \text{ oz}}{1} \times \frac{0.0078 \text{ gal}}{1 \text{ oz}} = \frac{0.06552}{1} \text{ gal} = 0.07 \text{ gal}$
35. 370 L = _____ mL	$\frac{370 \text{ L}}{1} \times \frac{1,000 \text{ mL}}{1 \text{ L}} = \frac{370,000}{1} \text{ mL} = 370,000 \text{ mL}$