

Chemistry Practice Sheet: Factor-Label Problems 1

Work out the following factor-label problems on a separate sheet of paper. Show the complete setup using all necessary conversion factors. Be sure to include the correct unit.

1. Change 125 cm to inches.
2. Change 27.3 feet to miles.
3. Change 150 pounds to grams.
4. Change 7 feet to meters.
5. Change 2.0 meters to inches.
6. Change 1 gallon to milliliters.
7. Change 14 gallons to milliliters.
8. Change 150 milliliters to cubic centimeters.
9. Change 62.4 lb/ft^3 to g/cm^3 .
10. Change 100 m/s to mph.
11. Calculate the number of heart beats in your life. (figure 70 beats per minute average)
12. Calculate the number of eye blinks in your life. (figure 12 blinks per minute average)
13. Count how long it would take to count to 106 by 1's. (figure 10 numbers in one minute)
14. One \$1 has a mass of 1.0 g. Calculate the amount of money in \$1 bills that you could carry. (you should be able to carry 50 to 100 pounds)
15. Find the volume of water in milliliters for a tank that is 150 cm long, 30 cm wide and 6.0 m deep.
16. Find the number of drops of water in a tank 50 m long, 30 m wide and 6.0 m deep. (20 drops = 1 mL)
17. Find the number of drops of water in a lake 3 miles long, 2600 yards wide and 12 feet deep.
18. Find the number of drops of water in a lake 20 miles long, 30 miles wide and 2.6 feet deep.
19. Calculate the height, in miles, that the national debt $\$(4 \times 10^{11})$ would reach if \$1 bills were stacked. (assume \$50 in \$1's is 1 inch)