

1.6: Exercises

For 1 - 26, convert the measurements. Round your answer up to 3 decimal places, if needed.

Exploration

1. 5 yards = _____ feet
2. 6 yards = _____ inches
3. 108 inches = _____ yards
4. 257 miles = _____ feet
5. 253 miles = _____ feet
6. 8 pounds = _____ ounces
7. 370 ounces = _____ ton
8. 417 ounces = _____ ton
9. 112 cups = _____ gallons
10. $8\frac{1}{2}$ gallons = _____ cups
11. 7 quarts = _____ fluid ounces
12. 9 fluid ounces = _____ quarts
13. 8 meters = _____ centimeters
14. 4580 milliliters = _____ liters
15. 3520 milliliters = _____ liters
16. 2 millimeters = _____ meters
17. 171 centimeters = _____ meters
18. 5180 milliliters = _____ liters
19. 2610 grams = _____ kilograms
20. 2 kilograms = _____ grams
21. 58.3 millimeters = _____ centimeters
22. 0.3429 kilograms = _____ milligrams
23. $14^{\circ}C = \text{______}^{\circ}F$
24. $41^{\circ}F = \text{______}^{\circ}C$
25. $12^{\circ}C = \text{______}^{\circ}F$
26. $99^{\circ}F = \text{______}^{\circ}C$
27. Convert the following between U.S. and Metric measurement systems.
 - a. 52 inches to centimeters
 - b. 2 miles to meters
 - c. 11 feet to decimeters
 - d. 47 ounces to grams
 - e. 4580 milliliters to cups
 - f. 22 millimeters to inches
 - g. 2.3 tons to kilograms
 - h. 2,610 grams to pounds
 - i. 7 gallons to liters
 - j. 10 cups to quarts
 - k. 3.6 quarts to cups
 - l. 29 cups to gallons
 - m. 3 pints to milliliters
 - n. 8 meters to yards
28. What unit of measurement do these abbreviations belong to?
 - a. da
 - b. wk
 - c. F
 - d. C

- e. yr
- f. sec
- g. min
- h. hr

29. Convert the following:

- a. 21°C to $^{\circ}\text{F}$
- b. 81°F to $^{\circ}\text{C}$
- c. 235,000 sec to yr
- d. 67 hr to da
- e. 19 wk to hr
- f. 4 da to min

30. Australia uses Celsius to measure temperature. Your travel agent said it will be between 23°C and 27°C during your visit. What is the temperature range in Fahrenheit?
31. You want to binge watch a TV show that has 11 episodes that are 45 minutes each. How many hours do you need to set aside this weekend to watch the entire series?
32. A friend from Switzerland is coming to visit the U.S. in December. You tell them it will be about 35° when they're here. You forgot to tell them that the measurement was in degrees Fahrenheit. They are used to Celsius and assume that is the temperature you told them. Are they planning for cold or hot weather? What Celsius temperature, should you have told them?
33. Your aunt always tells you her new child's age in weeks. The last time you saw them she said her child was 93 weeks old. How much is that in years?
34. To tell your colleague in Europe the temperature you are currently experiencing, you need to tell it to them in Celsius. If it is currently 64°F , what would you tell them?
35. If you drove 100 km/hour on the freeway, were you exceeding the speed limit?
36. Would you expect to pay more for 10 gallons (40 quarts) of gasoline or for 40 liters of gasoline?
37. Which is the better deal: apples priced at \$1.69 per pound or the same apples priced \$3.72 per kilogram?
38. If you ran 100 yards in the same time as I ran 100 meters, who ran faster?
39. Apollo Spas services 281 hot tubs. If each hot tub needs 105 milliliters of muriatic acid, how many liters of acid are needed for all of the hot tubs?
40. The photo sharing site Flickr had 2.7 billion photos in June 2012. Create a comparison to understand this number by assuming each picture is about 2 megabytes in size, and comparing to the data stored on other media like DVDs, iPods, or flash drives.
41. In June 2012, Twitter was reporting 400 million tweets per day. Each tweet can consist of up to 140 characters (letter, numbers, etc.). Create a comparison to help understand the amount of tweets in a year by imagining each character was a drop of water and comparing to filling something up.
42. During the landing of the Mars Science Laboratory *Curiosity*, it was reported that the signal from the rover would take 14 minutes to reach earth. Radio signals travel at the speed of light, about 186,000 miles per second. How far was Mars from Earth when *Curiosity* landed?
43. It is estimated that a driver takes, on average, 1.5 seconds from seeing an obstacle to reacting by applying the brake or swerving. How far will a car traveling at 60 miles per hour travel (in feet) before the driver reacts to an obstacle?

1.6: Exercises is shared under a [CC BY-NC-SA](#) license and was authored, remixed, and/or curated by LibreTexts.

- [5.4: Exercises](#) is licensed [CC BY-NC-SA 4.0](#).
- [6.1.3.1: Exercises](#) by Leah Griffith, Veronica Holbrook, Johnny Johnson & Nancy Garcia has no license indicated.