

Unit 9 Lesson 2

Imperial Conversions

Minds On

Measure your height in both feet and inches and just inches.

Before the metric system was introduced in Canada, we measured in **imperial units**, such as inches, feet, yards, and miles. These units are still in use. For example, in a football game you might hear that a running back gained five yards on a play, or perhaps a friend's height is 5 foot 3 inches.

The units in the imperial system are related by various multiples.

Length	1 foot (ft.) = 12 inches (in.) or 1' = 12" 1 yard (y) = 3 feet (ft) 1 mile (mi) = 1760 yards (yd)
Volume	1 cup (c.) = 8 fluid ounces (fl. oz.) 1 gallon (gal) = 4 quarts (qt.) = 8 pints (pt.)
Mass	1 pound (lbs) = 16 ounces (oz.)

Example 1. Insert the appropriate value in the blank below.

a) 15 feet = _____ inches

b) 15 feet = _____ yards

c) 3 miles = _____ yards

d) 36 in. = _____ ft.

e) 16 fl oz = _____ cups

f) 3 cups = _____ fl oz.

g) 2 gal = _____ qt = _____ pt

h) 3 pt = _____ qt

i) 10 lbs = _____ oz

j) 80 oz = _____ lbs

Example 2. Answer the following questions in the table.

<i>Question</i>	<i>Solution</i>
a) What is the speed of a race car in miles per hour if it travels 3520 yards in one hour?	
b) What is the diameter of a CD in feet if it measures 14.75 inches?	
c) Your car requires 12 gallons of gas. What is the volume in quarts? In pints?	
d) One side of a field measures 55 yards. How many feet is that?	
e) A baby is born weighing 114 oz. How many lbs and oz does the baby weigh?	

Example 3. Convert each of the following:

a) 75 in. = _____ ft. _____ in.

b) 98 in. = _____ ft. _____ in.

c) 95 oz. = _____ lbs. _____ oz.

d) 62 oz. = _____ lbs. _____ oz.

e) 4 lbs 3 oz. = _____ oz.

f) 6 lbs 8 oz. = _____ oz.

WORKSHEET

Convert each measure to inches.

1. 3 ft = _____ in

2. 7 ft 8 in = _____ in

3. 8 yd = _____ ft

4. 5 mi = _____ yd

5. 60 in = _____ ft

6. 5 ft 2 in = _____ in

7. 5 c = _____ fl oz

8. 16 qt. = _____ pt.

9. 24 fl. oz. = _____ c

10. 5 gal = _____ qt.

11. 16 qt. = _____ gal

12. 8 lbs = _____ oz

13. 3000 yd = _____ mi

14. 35 ft. = _____ yd

15. 78 fl oz. = _____ c

16. 6 gal = _____ pt.

Convert each measure to feet and inches

17. 102 in = _____ ft _____ in

18. 87 in = _____ ft _____ in

19. 85 in = _____ ft _____ in

Convert the measures to pounds and oz.

20. 35 oz. = _____

21. 102 oz. = _____

22. 57 oz. = _____

23. 87 oz. = _____

Convert the measures to oz.

24. 6 lb., 5 oz = _____

25. 12 lb. 8 oz = _____

26. 4 lb., 12 oz = _____

27. 8 lb., 6 oz. = _____