



Diagnostic Activity

Match the unit with its symbol.

pound

ounce

gallon

cups

inches

feet

yard

mile

C

gal

ft

yd

lb

mi

in

oz



Imperial Measures

Suggested Time: 45 minutes

What's important in this lesson:

In this lesson you will learn how to measure length in feet and inches using tape measures and 12-inch rulers; record Imperial measurements using commonly accepted abbreviations; estimate, measure, and construct a model in the Imperial system

Complete the following steps:

1. Read through the lesson portion of the package on your own.
2. Complete the exercises.
3. Check your answers with the Answer Key that your teacher has.
4. Seek assistance from the teacher as needed.

Hand in the following:

1. Diagnostic Activity
2. Practice Problems
3. Imperial Measures Evaluation

Questions for the teacher:



Imperial Measures

The Imperial System

Uses of Imperial measurement:

Sports: A CFL football field is 110 yards. Gains and losses are measured in yards.

Food: Bulk food items are sold by the pound.

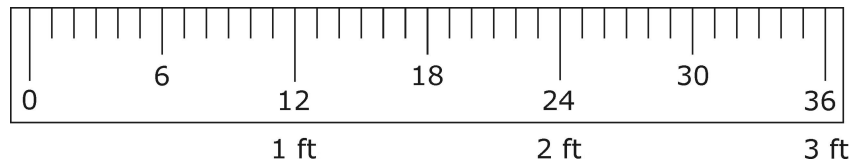
Construction: The length of wood sold by the foot

The living area of a home is measured in square feet

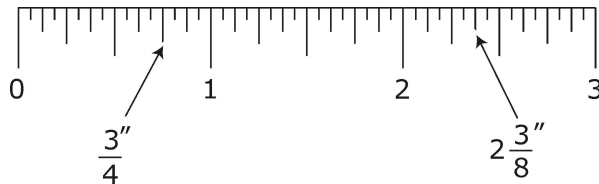
Personal Information: Most people know their height in feet and inches

A baby's birth weight is announced in pounds and ounces

The Imperial Ruler



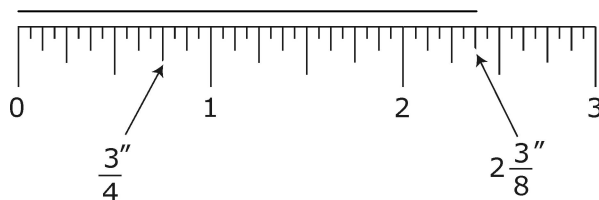
This is a scale diagram of a yard stick.



Part A: Measuring with Imperial Units

In the Imperial system, inches are divided in half. Then each half is divided in half (quarters), and so on.

Most rulers are accurate to $\frac{1}{16}$ th of an inch (the small tick mark).





Practice

1. Measure the following lines to the nearest $\frac{1}{16}$ th of an inch:

a) _____

b) |

c) _____

2. Draw a line for each length listed.

a) $2\frac{3}{4}$ "

b) $1\frac{5}{8}$ "

c) $\frac{7}{16}$ "

Part B: Imperial Conversions

Distance	Mass
1 foot = 12 inches	1 pound = 16 ounces
1 yard = 3 feet	2000 pounds = 1 ton
1 mile = 1760 yards	
1 mile = 5280 feet	

If you are converting in the order of the chart, MULTIPLY. Ex: ft to in, x 12
 If you are converting in the opposite direction, DIVIDE Ex. in to ft, ÷ 12

Examples

1. 84" is _____ feet

$84 \div 12 \text{ inches per foot} = 7 \text{ feet}$

So... 84in is 7 ft.



2. 4.5 yards is _____ feet

$$4.5 \times 3 \text{ feet per yard} = 13.5 \text{ feet}$$

So... 4.5 yds is 13.5 ft.

Practice

1. Convert each measurement to the unit specified.

$$9 \text{ lb} = \text{_____ oz.}$$

$$136 \text{ yd} = \text{_____ ft}$$

$$36960 \text{ ft} = \text{_____ mi.}$$

$$156 \text{ in} = \text{_____ ft}$$

$$2.5 \text{ mi} = \text{_____ yd}$$

$$5000 \text{ lb} = \text{_____ ton}$$



Imperial Measures Evaluation

1. Measure the diameter of each coin to the nearest $\frac{1}{16}$ of an inch.

[6]

Coin	Diameter
a. penny	
b. nickel	
c. dime	
d. quarter	
e. loonie	
f. toonie	

2. Circle the more likely measure for each distance.

[3]

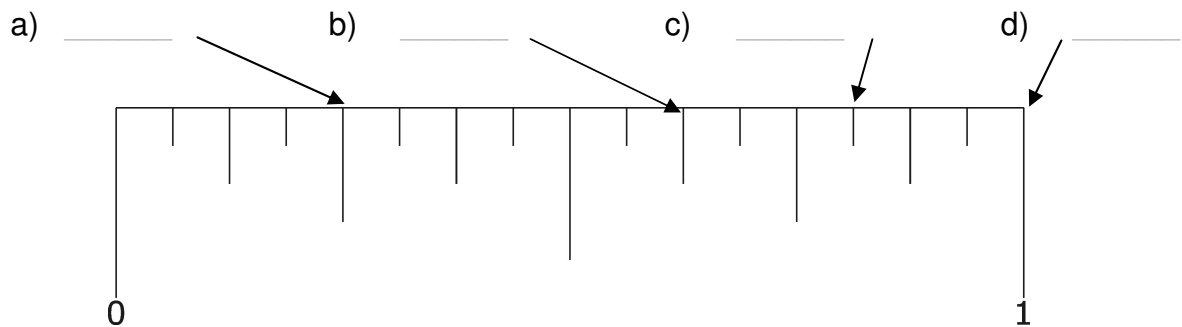
- a) The width of your binder 10 in. 10 ft

- b) The height of a wall 200 in. 10 ft

- c) The length of your foot 10 ft 1 ft

3. Write the fraction of an inch indicated by each arrow.

[4]





4. Locate and label each fraction of an inch on the enlarged ruler below.

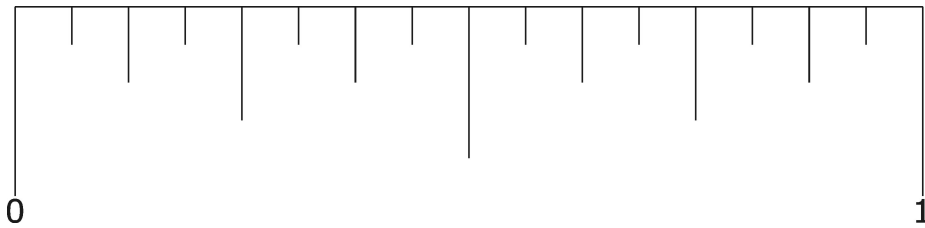
[4]

a) $\frac{3}{4}$ "

b) $\frac{5}{16}$ "

c) $\frac{5}{8}$ "

d) $\frac{13}{16}$ "



5. Convert each measurement to the unit specified.

[10]

a) 12 000 yd = _____ mi

e) 5 lb = _____ oz

b) 4 yd = _____ ft

f) 2 ton = _____ lb

c) 90" = _____ ft

g) 2.5 mi = _____ ft

d) 6ft 3in = _____ in

h) 6lb 7oz = _____ oz