

3 Linear Measurement: Imperial



Uses of imperial measurement:

- Many North American sports use imperial units.
For example, the CFL uses a football field that is 110 yards long.
An NBA basketball hoop is 10 feet high.
- Most people know their height in feet and inches.
- Many lengths for wood needed in construction projects are given in feet and inches.
For example, plywood boards are 4 feet by 8 feet.

1. What are other uses of imperial measurement?

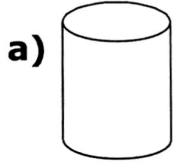
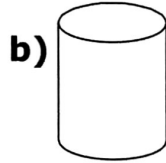
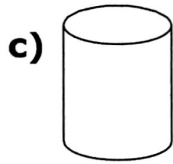
2. Europe uses the metric system. The United States uses the imperial system. Which system should Canada use? Why?

3.1 Introduction to Imperial Measure

Focus: developing number sense, using imperial measurements, representing fractions

Warm Up

1. Fill each container to the amount shown.


 $\frac{1}{4}$

 $\frac{1}{2}$

 $\frac{3}{4}$

2. What fraction of each diagram is shaded?



3. Count by 12s.

12 , _____ , _____ ,
 _____ , _____ , _____ ,
 _____ .

4. Draw the coin or coins that represent

a) one quarter of a dollar

b) one half of a dollar

c) three quarters of a dollar

5. What pairs of numbers multiply to give 16?

a) _____ \times _____ = 16

b) _____ \times _____ = 16

c) _____ \times _____ = 16

6. How many $\frac{1}{4}$ s are in $\frac{1}{2}$?
 (Hint: Think money!)

7. a) What is half of a half?

b) What is half of that?

8. A \$24 T-shirt is on sale for $\frac{1}{2}$ off.

The sale price is _____.

Units of Imperial Measure

The basic units of linear measure in the imperial system are the inch, the foot, the yard, and the mile.

An imperial ruler is one foot long.

There are _____ inches in 1 foot.

There are 3 feet in 1 yard.

So, there must be _____ $\times 3 =$ _____ inches in 1 yard.

There are 1760 yards in a mile. (You rarely would need to know this!!)

How many feet would be in one mile?

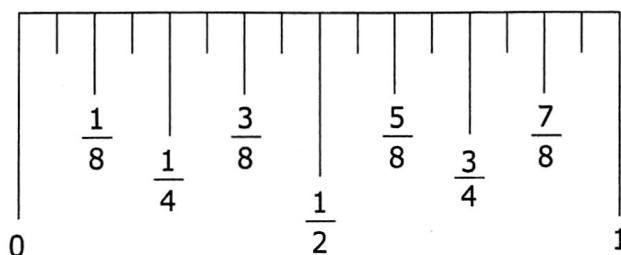
Write the four basic units of imperial measure in order from smallest to largest.

It is important to become familiar with the common abbreviations for imperial units.

You will need to know these:

Imperial Unit	Abbreviation
Inch	in. or "
Foot	ft or '
Yard	yd
Mile	mi

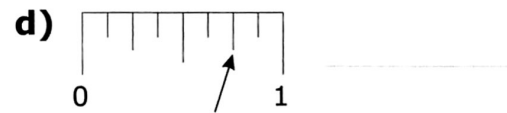
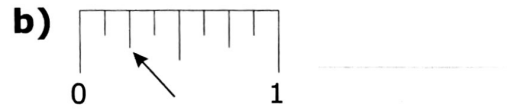
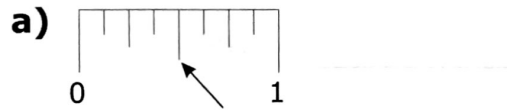
Most imperial rulers and measuring tapes divide an inch into 16 parts. In this course, you will focus on halves and quarters.



What is meant by an abbreviation?



1. Write the fraction of an inch shown by each arrow.



2. Choose the words from the box to write the first 3 fractions from #1 in order from smallest to largest.

one half one eighth one quarter

3. The lines on a ruler that divide an inch into equal parts are different lengths.

a) Why are the lengths of these division lines different?

b) What is the pattern?
