

The imperial unit for measuring long distances is the mile. The length of one mile was first established as the distance a Roman soldier could walk in 1000 paces. One pace is 2 steps.

Imperial Unit	Abbreviation	Referent	Relationship between Units
Inch	in.	?	?
Foot	ft.		
Yard	yd.		
Mile	mi.		

**Base Unit:** a unit of measurement on which other units are based.  
 ex: length - meter (m); volume - litre (L); mass - gram (g)

**Volume:** the amount of space a solid occupies.

### **Measurements using Imperial Units**

What units would you use if you were to tell me your height and weight?

**Imperial units** are still used in many industries in Canada even though we have adopted SI units, also known as the metric system. The **imperial system** is *not* a decimal system as the measurements were all developed at different times to meet certain needs. Therefore, you must use a **conversion factor** to convert one imperial unit to another.

180 lbs 5' 11"

**FIGURE 4.1**

#### **Some Common Imperial Units**

Length	
<i>Unit</i>	<i>Abbreviation</i>
inch	in or "
foot	ft or '
yard	yd
mile	mi

### DISCUSSION...

Which imperial unit is the most appropriate unit to measure each item? Justify your choice.

- a) the height of your desk *ft - in*
- b) the thickness of a mattress *in*
- c) the width of a car *yd - ft - in*
- d) the length of a flat panel TV *in*
- e) the distance from the school to your home *mi*



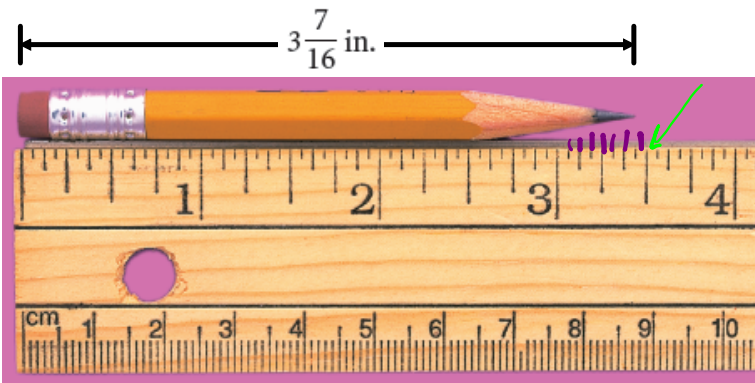
## Imperial Conversions

We will be working with units for length. The smallest unit we will use is the inch, followed by a foot, followed by a yard, and finally a mile. Read the top of page 143 and then copy and complete the table below.

IMPERIAL CONVERSION TABLE	
1 foot =	<u>12</u> inches
1 yard =	<u>3</u> feet = <u>36</u> inches
1 mile = 1760 yards =	<u>5280</u> feet

$$\frac{12}{32} = \frac{3}{8}$$

To measure the length of an object, first determine the smallest indicated unit by counting the number of divisions between two adjacent inch marks. The ruler below has ? divisions between two adjacent inch marks




$$3 \frac{7}{16}''$$

The pencil point is closest to the 7th division mark between 3 in. and 4 in., so its length is  $3 \frac{7}{16}$  in.



A fraction of an imperial measure of length is usually written in fraction form, not decimal form.

# HOME *work* assignment...

 Assignment - Measuring in an Imperial System.pdf

## Attachments

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Assignment - Measuring in an Imperial System.pdf