

Chapter 1 - Measurement

1.1 - Imperial measures

Imperial - inch, Feet, yards, etc.

SI or Metric - cm, m, km, etc.

Referents - objects used as an estimating tool

your thumb	is a referent an	inch
your foot	" " " "	foot
from your nose	to finger tip	" " yard

$$1 \text{ yd} = 3 \text{ ft}$$

1. Convert 7 yd to
a. feet

$$7 \text{ yd} \times \frac{3 \text{ ft}}{1 \text{ yd}} = 7 \cdot 3 \text{ ft} = 21 \text{ ft}$$

b. inches

$$1 \text{ yd} = 3 \text{ ft}$$

$$1 \text{ ft} = 12 \text{ in}$$

$$7 \text{ yd} \times \frac{3 \text{ ft}}{1 \text{ yd}} \times \frac{12 \text{ in}}{1 \text{ ft}} = 7 \cdot 3 \cdot 12 \text{ in} \\ = 252 \text{ in}$$

Convert 3 miles to yards

$$1 \text{ mi} = 1760 \text{ yd}, \quad 1 \text{ yd} = 3 \text{ ft}, \quad 1 \text{ ft} = 12 \text{ in}$$

$$3 \text{ mi} \times \frac{1760 \text{ yd}}{1 \text{ mi}} = 3 \cdot 1760 \text{ yd} = 5280 \text{ yd}$$

Convert 3 miles to inches?
miles \rightarrow yards \rightarrow feet \rightarrow inches

$$3 \text{ mi} \times \frac{1760 \text{ yd}}{1 \text{ mi}} \times \frac{3 \text{ ft}}{1 \text{ yd}} \times \frac{12 \text{ in}}{1 \text{ ft}} = (3 \cdot 1760 \cdot 3 \cdot 12) \text{ in}$$

190080 in

$$12 \text{ in} = 1 \text{ ft}$$

inches to ft.

$$6 \text{ inches} \times \frac{1 \text{ ft}}{12 \text{ in}} = \frac{6}{12} \text{ ft} = 0.5 \text{ ft}$$

p. 11
3-7 *