

Customary Length

The common customary units that are used to measure length are inch, foot, yard, and mile. The chart shows a list of common measures.

$$1 \text{ foot (ft)} = 12 \text{ inches (in.)}$$

$$1 \text{ yard (yd)} = 3 \text{ feet} \\ = 36 \text{ inches}$$

$$1 \text{ mile (mi)} = 1,760 \text{ yards} \\ = 5,280 \text{ feet}$$

Find: $3\frac{1}{2} \text{ ft} = \underline{\hspace{2cm}} \text{ in.}$

To change feet to a smaller unit, multiply.
Use fractions.

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

$$3\frac{1}{2} \times 12 = \frac{7}{2} \times \frac{12}{1} = \frac{42}{1} = 42$$

$$3\frac{1}{2} \text{ ft} = 42 \text{ in.}$$

Find: $10 \text{ ft} = \underline{\hspace{2cm}} \text{ yd}$

To change feet to a larger unit, divide.

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

$$\frac{10 \text{ ft}}{3 \text{ ft}} = 3\frac{1}{3}$$

$$10 \text{ ft} = 3\frac{1}{3} \text{ yd}$$

Change each measurement to the smaller unit. For some problems, you may need to change units twice.

$$1. \ 5\frac{1}{6} \text{ yd} = \underline{15\frac{1}{2}} \text{ ft} \quad 1\frac{1}{2} \text{ mi} = \underline{\hspace{2cm}} \text{ ft} \quad 7\frac{1}{3} \text{ ft} = \underline{\hspace{2cm}} \text{ in.} \quad 2 \text{ mi} = \underline{\hspace{2cm}} \text{ in.}$$

$$2. \ 1\frac{1}{4} \text{ yd} = \underline{\hspace{2cm}} \text{ in.} \quad 21 \text{ yd} = \underline{\hspace{2cm}} \text{ ft} \quad 4 \text{ mi} = \underline{\hspace{2cm}} \text{ yd} \quad 4 \text{ yd} = \underline{\hspace{2cm}} \text{ in.}$$

Change each measurement to the larger unit. For some problems, you may need to change units twice.

$$3. \ 51 \text{ in.} = \underline{4\frac{1}{4}} \text{ ft} \quad 38 \text{ ft} = \underline{\hspace{2cm}} \text{ yd} \quad 6 \text{ in.} = \underline{\hspace{2cm}} \text{ ft} \quad 440 \text{ yd} = \underline{\hspace{2cm}} \text{ mi}$$

$$4. \ 4,400 \text{ yd} = \underline{\hspace{2cm}} \text{ mi} \quad 222 \text{ in.} = \underline{\hspace{2cm}} \text{ yd} \quad 15,840 \text{ ft} = \underline{\hspace{2cm}} \text{ mi} \quad 24 \text{ in.} = \underline{\hspace{2cm}} \text{ yd}$$

Solve.

5. Beth used 24 inches of material to make a pillow cover. How many yards is this?

Answer

6. The distance from José's house to the library is $\frac{1}{2}$ mile. How many yards is this?

Answer