

Today, you will learn customary units of length and the relationship between them. Here are some notes and step by step problems. **On the last page do #1-9 as practice.**

Customary Units of Length: Inches, Feet, Yards, Miles

*You can use a ruler to measure length.

*A ruler is **1 foot** long and has **12 inches**.

*There are **12 inches** in **1 foot**.



*Do you see a pattern?

1 foot equals **12 inches** because $1 \times 12 = 12$.

2 feet equals **24 inches** because $2 \times 12 = 24$.

3 feet equals **36 inches** because $3 \times 12 = 36$.

4 feet equals **48 inches** because $4 \times 12 = 48$.

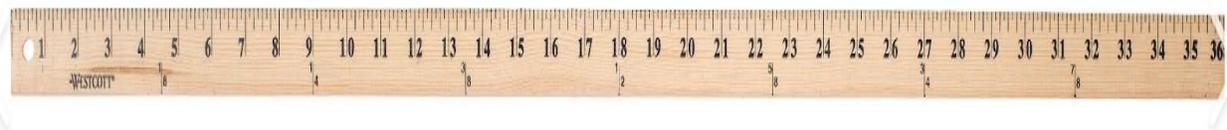
5 feet equals **60 inches** because $5 \times 12 = 60$.

*You can also use a yardstick to measure length.

*A yardstick is **3 feet** long and has **36 inches**.

*There are **36 inches** in **3 feet**.

***1 yard** equals **3 feet**.



*Do you see a pattern?

1 yard equals **3 feet** because $1 \times 3 = 3$ or **36 inches** because 3×12 equals 36.

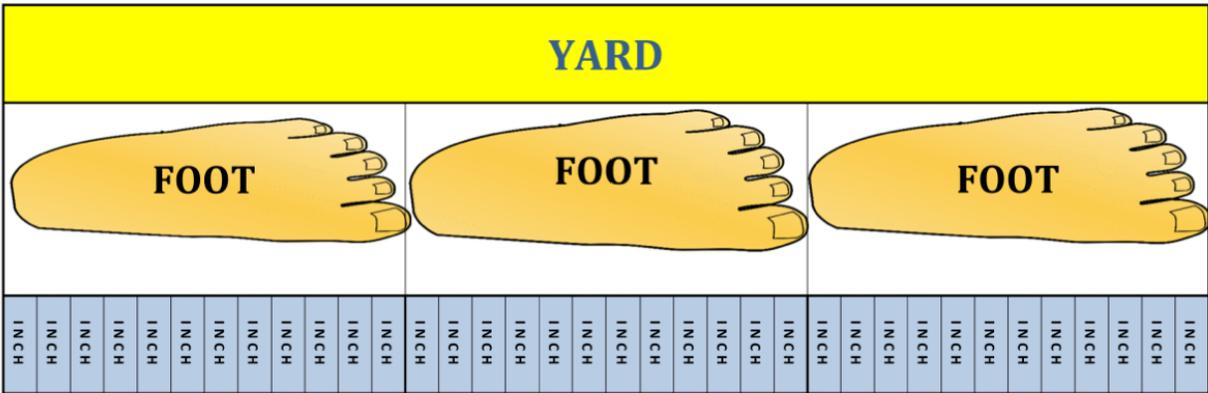
2 yards equals **6 feet** because $2 \times 3 = 6$ or **72 inches** because 6×12 equals 72.

3 yards equals **9 feet** because $3 \times 3 = 9$ or **108 inches** because 9×12 equals 108.

4 yards equals **12 feet** because $4 \times 3 = 12$ or **144 inches** because $12 \times 12 = 144$.

5 yards equals **15 feet** because $5 \times 3 = 15$ or **180 inches** because $15 \times 12 = 180$.

*Let's put that all together!



1 yard = 3 feet = 36 inches 1 foot = 12 inches

*Abbreviations for **inches** is **in**, **feet** is **ft**, and **yards** is **yd**.



1 mile = 1,760 yards = 5,280 feet

Miles are long distances and are mostly used to measure the distance between places which are far away from each other. Most people refer to miles when they are driving, biking or jogging.

1 foot = 12 inches

1 yard = 3 feet = 36 inches

1 mile = 1,760 yards = 5,280 feet = 63,360 inches

Let's do some examples together!

Directions: Fill in the blank.

4 yards = _____ feet **Answer:** 12 ft

How did I get 12? I multiplied 4×3 because it said 4 yd and there are 3 ft in 1 yd.

7 feet = _____ inches **Answer:** 84 in

How did I get 84? I multiplied 7×12 because it said 7 ft and there are 12 in. in 1 ft.

2 miles = _____ yards **Answer:** 3,520 yards

How did I get 3,520? I multiplied $1,760 \times 2$ because it said 2 miles and there are 1,760 yards in a mile.

Directions: Compare with less than, greater than, or equal to.

1 foot \bigcirc 13 inches **Answer:** $1 \text{ ft} < 13 \text{ in}$ or 1 ft is less than 13 in

How did I get 1 ft is less than 13 in? I know that 1 ft equals 12 in and 12 is less than 13.

2 yards \bigcirc 6 feet **Answer:** $2 \text{ yd} = 6 \text{ ft}$ or 2 yd is equal to 6 ft

How did I get 2 yd equals 6 ft? I know that 1 yd has 3 ft, so 3×2 for 2 yd equals 6 ft. 6 and 6 are equal.

6 feet \bigcirc 60 inches **Answer:** $6 \text{ feet} > 60 \text{ inches}$ or 6 ft is greater than 60 in

How did I get 6ft is greater than 60 in? I multiplied $6 \times 12 = 72$ because it said 6 ft and there are 12 in. in 1 ft. 72 is greater than 60.

2 miles \bigcirc 15,840 inches **Answer:** $2 \text{ miles} < 15,840 \text{ inches}$ or 2 miles is less than 15,840 inches

How did I get 2 miles is less than 15,840 inches? I multiplied $2 \times 5,280$ because it said 2 miles and there are 5,280 inches in a mile. 10,560 is less than 15,840.

Your Turn! Practice Problems:

Directions: Fill in the blank.

1. 8 feet _____ inches **Answer:**

2. 7 yards _____ feet **Answer:**

3. 4 feet _____ inches **Answer:**

4. 3 miles _____ yards **Answer:**

5. 2 miles _____ inches **Answer:**

Directions: Compare with less than, greater than, or equal to.

6. 3 yards ○ 10 feet **Answer:**

7. 3 feet ○ 60 inches **Answer:**

8. 8 yards ○ 20 feet **Answer:**

9. 4 miles ○ 21,120 feet **Answer:**