



Practice



Video



Tools



Games

**Additional Practice 13-1****Equivalence with Customary Units of Length****Another Look!**

Joe's cat, Tiger, is  $2\frac{1}{6}$  feet long. Casey's cat, Fluffy, is  $\frac{3}{6}$  yard long. Which cat is longer? How much longer?



Be precise and use the correct units.

**Step 1**

Change Fluffy's length to feet and compare.

$$\begin{aligned}\frac{3}{6} \times 3 &= \frac{3 \times 3}{6} \\ &= \frac{9}{6} = \frac{6}{6} + \frac{3}{6} = 1\frac{3}{6}\end{aligned}$$

Fluffy is  $1\frac{3}{6}$  feet long.

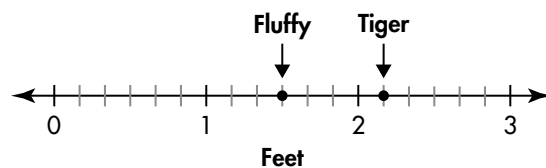
Compare the lengths.

$$2\frac{1}{6} > 1\frac{3}{6}$$

Tiger is longer.

**Step 2**

Find the difference. Use a linear model to help.



$$2\frac{1}{6} = 1 + \frac{6}{6} + \frac{1}{6} = 1\frac{7}{6}$$

$$2\frac{1}{6} - 1\frac{3}{6} = 1\frac{7}{6} - 1\frac{3}{6} = \frac{4}{6}$$

Tiger is  $\frac{4}{6}$  foot longer than Fluffy.

In 1–3, write  $>$  or  $<$  in each  to compare the measures.

1. 8 inches  8 feet

2. 5 yards  12 feet

3. 3 yards  90 inches

For 4–7, convert each unit.

4. 25 feet = \_\_\_\_\_ inches

5. 3 miles = \_\_\_\_\_ feet

6.  $\frac{1}{2}$  yard = \_\_\_\_\_ inches

7. 57 yards = \_\_\_\_\_ inches

For 8–9, complete each table.

8.

Feet	Inches
2	
4	
6	
8	

9.

Yards	Inches
1	
2	
3	
4	

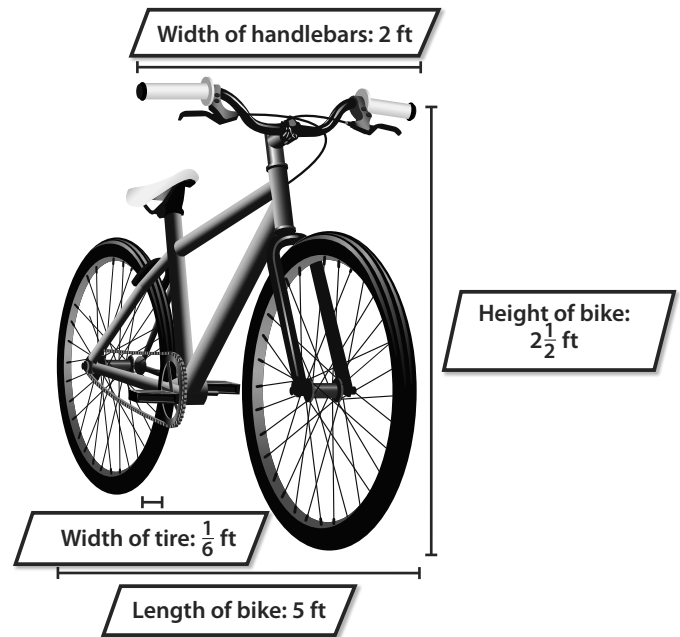


For **10–12**, use the picture at the right.

**10. Be Precise** How many more feet is the length of the bike than the height of the bike?

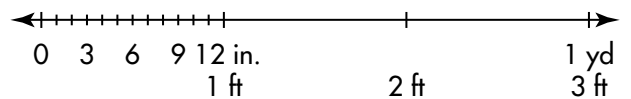
**11.** What is the width of the tire in inches?

**12.** Each handle is  $\frac{1}{4}$  the width of the handlebars. How many inches long is each handle?




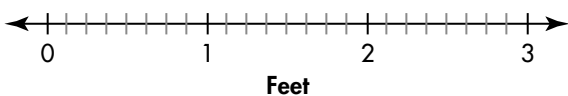
**13. Make Sense and Persevere** Harriet rode her bike  $2\frac{1}{4}$  miles to the mall. She then rode  $\frac{3}{4}$  mile to the grocery store. She came back the way she went. How many miles did Harriet ride in all? Explain.

**14. Higher Order Thinking** Use the linear model. What fraction of 1 foot is 3 inches? What fraction of 1 yard is 3 inches? Explain.




### Assessment Practice

**15.** Vulkan jumped  $\frac{7}{8}$  yard and then  $2\frac{7}{8}$  feet. How many feet did he jump in all? Show both measures with points on the number line.  4.MD.1.2



feet

**16.** A medium sandwich at Heidi's Heros is  $\frac{5}{8}$  foot long. A small sandwich is  $4\frac{7}{8}$  inches. How many inches longer is the medium than the small?  4.MD.1.2

- (A)  $2\frac{5}{8}$  inches
- (B)  $2\frac{7}{8}$  inches
- (C)  $3\frac{3}{8}$  inches
- (D)  $4\frac{2}{8}$  inches