

Lesson 2 Summary

There are 12 inches in a foot, so we can say that for every 1 foot, there are 12 inches, or the ratio of feet to inches is 1: 12. We can find the unit rates by dividing the numbers in the ratio:

$$1 \div 12 = \frac{1}{12}$$

so there is $\frac{1}{12}$ foot per inch.

$$12 \div 1 = 12$$

so there are 12 inches per foot.

The numbers in a ratio can be fractions, and we calculate the unit rates the same way: by dividing the numbers in the ratio. For example, if someone runs $\frac{3}{4}$ mile in $\frac{11}{2}$ minutes, the ratio of minutes to miles is $\frac{11}{2} : \frac{3}{4}$.

$$\frac{11}{2} \div \frac{3}{4} = \frac{22}{3}, \text{ so the person's}$$

pace is $\frac{22}{3}$ minutes per mile.

$$\frac{3}{4} \div \frac{11}{2} = \frac{3}{22}, \text{ so the person's}$$

speed is $\frac{3}{22}$ miles per minute.