Ratios

There are three ways to represent a ratio: with a semicolon, $a{:}b$; fractional notation, $\frac{a}{b}$; and verbally, "a to b."

EXAMPLE

In a group of 35 people, 15 are wearing white shoes and the rest are wearing black shoes.

What is the ratio of people wearing white shoes to people wearing black shoes?

There are 15 people wearing white shoes, so there are 20 people wearing black shoes.

The ratio can be written as 15:20, $\frac{15}{20}$, or 15 to 20.

What is the ratio of people wearing black shoes to people wearing white shoes?

The ratio can be written as 20:15, $\frac{20}{15}$, or 20 to 15.

GUIDED PRACTICE

The local humane society picked up 25 stray animals one day. Ten were dogs and fifteen were cats. Express the ratio of cats to dogs three different ways.

PRACTICE

Write a ratio to represent each of the following situations. Use a different representation for each ratio.

1. Lee has found that he gets 93 miles for every 3 gallons of gas in his car. Create a ratio to show Lee's miles per gallon.

2. Amy gets paid $17.00 for every 2 hours she babysits. Create a ratio to show how much Amy earns per hour.

3. Joel has 7 tickets to the World Series. Two of the tickets were gifts from a friend and are box seats. The remaining tickets are reserved seats. What is the ratio of reserved seats to box seats?