12-6

Problem Solving: Draw a Picture

Veronica is celebrating her birthday by having a skating party. As part of a birthday special, Veronica paid for 10 tickets and 2 guests received free admission. What fraction of the people at Veronica's party were not charged for admission?

Read and Understand

What do you know? There were 10 paid admissions and 2 free admissions. What are you trying to find? The fraction of people attending Veronica's party that were admitted at no charge.

Plan and Solve

What strategy will you use? Draw a picture to show the 10 paid admissions and the 2 free admissions.

Count the boxes. There were 12 people admitted. Since 2 of the 12 people were admitted at no charge, the fraction is $\frac{2}{12}$, or $\frac{1}{6}$ in simplest form.

Paid admission					
Free admission					

Look Back and Check

Is your answer reasonable? Yes. The picture shows 2 out of 12 boxes, which is $\frac{2}{12}$, or $\frac{1}{6}$.

Draw or use a picture to solve each problem.

One afternoon, the ratio of black shirts sold to white shirts sold at The Clothes Horse was 2:1. Complete the picture to show the ratio.

Black shirts sold					
White shirts sold					

- 1. How many boxes are shaded in all?
- 2. What fraction of the shirts sold were black?
- **3.** The Clothes Horse sold 12 shirts that afternoon. How many black shirts were sold? HINT: YOU CAN ADD TO THE PICTURE UNTIL THERE ARE 12 SHADED BOXES TO REPRESENT THE PROBLEM.
- **4.** Ilene earns \$20. She saves \$2 for every \$8 that she spends. How much of the \$20 will she save?