Write

Write a definition for *equation* in your own words. Use an example to illustrate your definition.

Remember

The solution to an equation is a value for the unknown that makes the equation true.

Practice

1. The Sharks Aquatic Club recently held a fundraiser to raise money for a local charity. The swimmers received money for each lap that they swam during a one-week period. The three swimmers who raised the most money were Rita, John, and Rodell. Together they swam a total of 2125 laps. John swam three times as many laps as Rita, and Rodell swam 25 more laps than John. How many laps did each swimmer swim?
   a. Draw a picture to represent the situation. Label the unknown parts with variables and the known parts with their values.
   b. Determine the number of laps each person swam using the picture you created. Explain your reasoning.
   c. Write an expression for the number of laps each person swam. Let *L* represent the number of laps swum by Rita.
   d. Write an equation to represent this situation.
   e. If the swimmers received $2 for every lap they swam, how much did each swimmer earn for charity?

Stretch

Describe how to solve any equation in the form $ax + b = c$ for the variable *x*.

Review

1. Simplify each expression by combining like terms.
   a. $3b + 2 + b$
   b. $\frac{1}{2}(h + 4) - \frac{1}{8}(h + 4)$

2. Rewrite each linear expression by factoring out the GCF.
   a. $25x - 5$
   b. $9n + 36$

3. A salesperson receives 12% commission on all the sales that she makes. Calculate the commission on each sale.
   a. A quarter-page ad for $250.00
   b. A full-page ad for $800.00