Challenge Practice
For use with the lesson "Solve Two-Step Equations"

1. Solve the equations $2x + 1 = 3$, $2x + 1 = 5$, and $2x + 1 = 7$, then predict the solution to $2x + 1 = 9$. Explain your reasoning.

2. Solve the equations $3x + 5 = 8$, $3x + 2 = 8$, and $3x - 1 = 8$, then predict the solution to $3x - 4 = 8$. Explain your reasoning.

3. Solve the equations $x - 5 = 55$, $2x - 5 = 55$, and $3x - 5 = 55$, then predict the solution to $4x - 5 = 55$. Explain your reasoning.

4. At the start of a race two swimmers are swimming side by side in adjacent lanes of a pool whose lanes are 25 meters long. One swimmer, swimming at a rate of 60 meters per minute, pulls ahead of the other swimmer who is swimming at a rate of 55 meters per minute. How many minutes pass from the start of the race to when the two swimmers are once again swimming side by side?

5. Ann misses the school bus in the morning and has to get a ride to school. Her ride leaves 10 minutes after the school bus passed her bus stop, and arrives at the school at the same time as the bus arrives. If the distance from Ann's bus stop to the school is 6 miles and Ann's ride traveled at an average speed of 36 miles per hour, then what was the average speed of the school bus as it traveled from Ann's bus stop to the school?

6. Two friends, Tom and Cecilia, agree to meet at a park to play tennis. Cecilia lives 4 miles from the park and leaves her house at noon. Tom lives 5 miles from the park and leaves his house 10 minutes after Cecilia leaves her house. How fast will Tom have to travel to reach the park at the same time as Cecilia if Cecilia is traveling at 12 miles per hour?