

**Part 3** Area Problems

Choose an appropriate strategy to solve each problem. Label your answers with appropriate units.

1. Jessie's parents are buying a rug for Jessie's bedroom. Jessie measured the length and width of her bedroom floor. It is 10 feet by 10 feet. If they want to cover the entire floor, what is the area of the rug they should purchase? What shape should the rug be? How did you decide?
2. Arthur made a cake in a rectangular pan that is 13 inches  $\times$  9 inches. He put red icing on half the cake and white icing on the other half, so he had two triangles. What is the area of the red triangle? Explain your thinking.
3. Jerome's grandmother has an 8-inch by 10-inch wedding picture of herself and Jerome's grandfather. Her wedding picture sits next to Jerome's 3-inch by 5-inch school picture. About how many times greater in area is the wedding picture than the school picture. Show or tell how you decided.
4. **A.** Shannon has a dog run in her back yard for her dog. The dog run is a rectangle that is 12 feet by 8 feet. What is the area of her dog run?  
**B.** Nila wants to put the same size dog run in her backyard. Her yard is in the shape of a square with an area of 100 square feet. Will an 8-feet by 12-feet dog run fit in her yard? Explain why or why not.