## Treasure Hunt Answers

1. A baseball infield is in the shape of a square, with each base at a vertex. The area is $90 \times 90$ square feet, or 8100 square feet, or 900 square yards.
2. The bases are 90 feet apart.
3. It is 60 feet, 6 inches from the pitchers mound to home plate. www.mlb.com/NASApp/mlb/mlb/baseball_basics/mlb_basics_objectives.jsp * is a Web site with all the rules of baseball.
4. There are 14 American League teams and 16 National League teams in the major leagues. Most of the teams are on the East Coast. www.ballparks.com/baseball/index.htm* has a map of where the teams are located. (Click on facts and figures to see the maps.)
5. The Milwaukee Brewers, the Pittsburgh Pirates and the Detroit Tigers built stadiums in this century. Wrigley Field was built in 1926. www.ballparks.com/baseball/index.htm* has a history of the teams and ballparks. (Click on facts and figures to the left.)
6. A baseball weighs 5 oz . It is 9 in . to 9.25 in . in circumference.
7. Home plate is 17 inches wide. Home plate is a pentagon with a top side of 17 inches; the two opposite parallel sides are $81 / 2$ inches, and two 12 inch sides that meet at a vertex.
8. It takes .46 seconds for the ball to reach home plate (about half a second).
9. Students should measure the distance from their shoulders to their waist, half it, then measure from this point to the midpoint of their knee. The plate is 17 inches wide.
10. Third base is 127.28 feet $\left(d^{2}=90^{2}+90^{2}\right)$ or 127 feet, $33 / 8$ inches. Same for home to second since it is a square. Pythagorean relationship is required.

See www.mlb.com/NASApp/mlb/mlb/baseball_basics/mlb_basics_stats_101.jsp* for definitions of the statistics kept in baseball.

