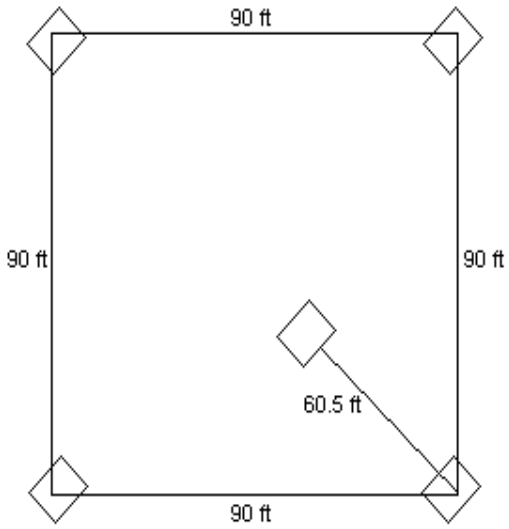
Baseball Trigonometry!

A baseball diamond is a square with sides of 90ft. The pitcher's mound is 60.5 feet from home base, right up the middle of the field. Notice, however, that the pitcher's mound is not in the very center of the field.
Trigonometry gives us the relationships between the sides of triangles and the interior angles of the triangle. We're going to use trigonometry to find some of the distances between bases and the pitcher's mound. Most of these can be found by using the Pythagorean Theorem.



1. If the person on first base wants to throw the ball to third base, how far will the ball have to be thrown?

2. If the pitcher throws the ball to second from the pitcher's mound, how far will the ball have to be thrown?

3. How far is the pitcher's mound from the center of the baseball diamond?

4. If the pitcher wants to throw the ball to first (or third) base, how far will the ball have to be thrown?

5. What is the angle from the pitcher's mound between home plate and first base?

6. What is the angle from first base between the pitcher's mound and second base?