Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Take Me Out to the Ball Game**

The four bases of a major league baseball field form a square which is 90 feet on each side. A drawing of the field is overlaid on a coordinate grid.

* The pitching mound is collinear to home plate and second base.
* The pitching mound is not equidistant from each base.
* The pitching mound is 60.5 feet from home plate.

To which base is the pitcher closest? Mathematically justify your answer and provide a labeled diagram which models the problem and shows all variables to which you will refer.

1st Base

Home Base

2nd Base

3rd Base