

MATHCOUNTS[®] Problem of the Week Archive

Play Ball! – October 11, 2021

Problems

The second round of the Major League Baseball play-offs is “best out of 5,” meaning that two teams will play each other until one team wins three games. How many different ways could this play-off match-up between Team A and Team B play out? (For example, here’s 2 different ways the series could go with Team A winning: ABAA or AABA.)

There is a distance of 60 feet 6 inches between the batter and the pitcher, and an average fast ball travels 93 miles per hour. Assuming the speed of the ball remains constant, how many seconds will it take for the ball to travel 60 feet 6 inches? Express your answer to the nearest hundredth.

After hitting the ball, the batter must run 90 feet to first base. The four bases (1st, 2nd, 3rd and home plate) are set up in a square. How many feet/inches (for example, 8’ 2”) are in the distance between home plate and 2nd base, to the nearest inch?