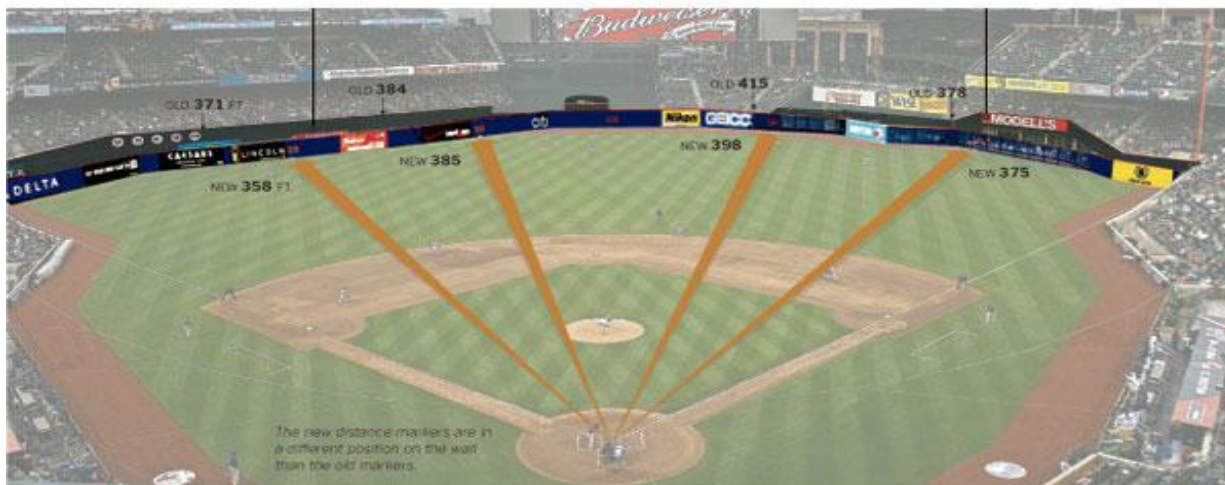


# PROJECTILES

Unit 9,4,5 Dr. John P. Cise, Professor of Physics, Austin Com. College,

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Please send me an e-mail on the use you got of this NYTimes physics application. Thanks! Dr Cise



## It's Official: Mets' Citi Field to Shrink

[Citi Field](#), the nearly \$800 million stadium built by and for the [Mets](#), was the realization of a family dream, constructed with government financial backing and the support of two mayors. The stadium, with its Ebbets Field touches, was an ode to the past. With its Shake Shack burgers and lobster rolls, it was also a bold bid to cash in on pricey ballpark amenities. On Monday, though, the team's owners admitted, in a formal and final way, that they had botched the one most important thing in realizing their dream: they got the field wrong. For the 2012 season, **new walls will be constructed in three areas of the outfield to substantially diminish the outfield's overly large dimensions.** Most notable, the **imposing 16-foot wall in left field, often called the Great Wall of Flushing, will now have a new eight-foot wall in front of it**, with several rows of seats to fill in the gap between the two structures.

The changes are expected to make it easier to hit home runs at Citi Field and make the stadium less daunting for the team's struggling power hitters.

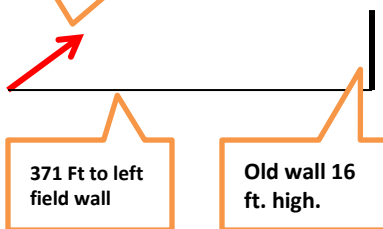
**INTRODUCTION:** Assume in the case of each field (Old vs New) the balls are hit at  $45^\circ$  to the horizontal. **QUESTIONS:** (a) Find the minimum Speed (in ft/s and mph) of a ball hit in old field to clear the 16 ft wall? (b) Also find the time Of flight to clear 16 ft wall in the old field? (c) Answer question (a) & (b) for the NEW field?

**ANSWERS:** (a)  $\sim 110.93$  ft/s or  $\sim 75.63$  mph  
(b) 4.710 s (c)  $\sim 107.8$  ft/s or  $\sim 73.5$  mph and  $t \sim 4.68$  s

**HINT:** 60 mph = 88 ft/s

### OLD FIELD:

Find V to get home run with old field?



### NEW SHORTER FIELD & LOWER WALL.

Find V to get homerun with new field?

