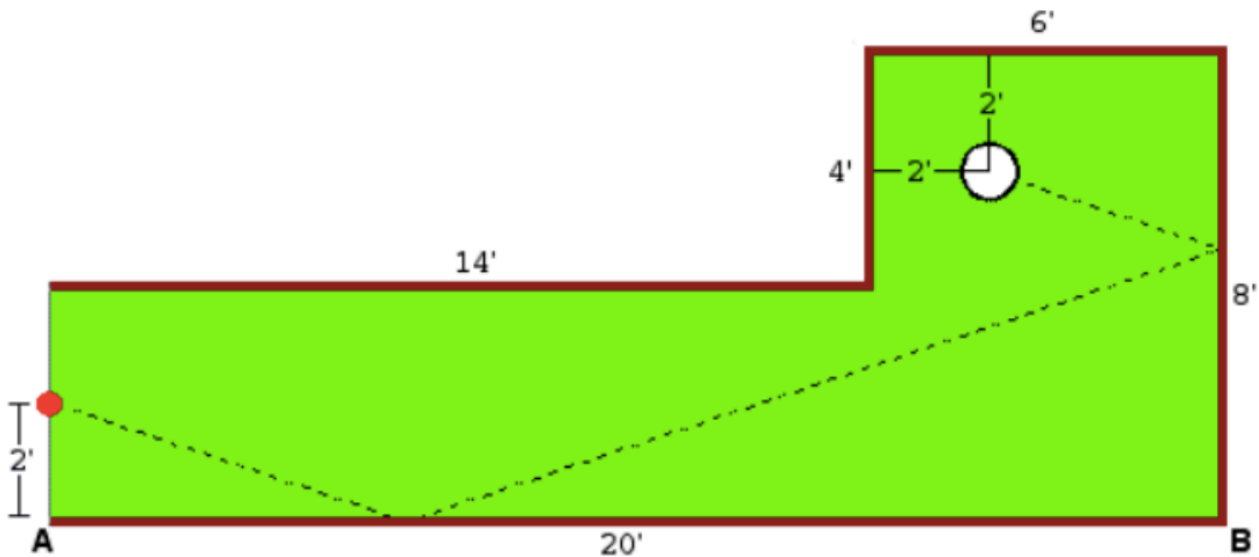


Miniature Golf Challenge

Tiger is playing miniature golf and comes to the green below. He decides that in order to make a hole in one he will need to play a double bank shot with his trusty red ball, hitting two sides of the wooden border as shown:



Tiger knows that when his ball bounces off the border, the slope of the path after the bounce is the negative of the slope before the bounce.

Use algebraic techniques to determine:

1. How far along the 20 foot border (from corner A) is the spot Tiger must hit in order to make a hole in one?
2. How far along the 8 foot border (from corner B) will his ball hit on its way to the hole?

Extra: Tiger's friend Phil is also playing. Phil thinks that he can make a hole in one with a single bank shot, starting at the same spot and bouncing it directly off the 8 foot border and back into the hole. Is Phil right? Why or why not?