

Lesson 38 Applications of Quadratic Equations

1. A baseball is thrown into the air and its height (h), in feet, can be modeled by the equation $h = -7t^2 + 34t + 5$, where t represents time in seconds.

How many seconds will it take for the baseball to hit the ground ($h = 0$) after it is thrown into the air?

Answer _____

2. Suppose a football player kicks a ball and the height (h) of the football in feet can be modeled by the equation $h = -8t^2 + vt + c$, where t is the time in seconds after the ball is kicked, v is the initial upward velocity, and c is the starting height.

Write an equation that can be used to find the height (h) of the ball after t seconds if the initial upward velocity is 15 ft/sec and the starting height is 2 ft.

Answer _____

If the ball is not touched, how long will it take for the ball to reach the ground?

Answer _____