

Name: _____

Class: _____

Date: _____

When kicked, a football may follow the path defined by the equation $y = -16x^2 + kx$ where k is the initial velocity of the kick. In order to clear the 10 ft high goal post it may a path defined by $y = -16x^2 + kx - 10$. Find an example of values for k that would clear the goal post and an example that would not. Then compare your answers with an actual statistic for a kicker.

What solution(s) did you find?

Does it/do they makes sense in the context of the problem? What does it mean?

What type(s) of solution where you expecting? Think number systems.

Which method(s) for solving quadratic equations did you choose?

Why? Do you think this was the best method?

Show all of your work (neatly).