

Objective – Students will be introduced to a quadratic equation in a real life situation and learn the names for the terms of a quadratic equation.

Imagine that you shoot a basketball from a height of 6 feet with an upward velocity of 72 feet per second.

How far is the ball from the ground at the moment you launch it?

How far is the ball from the ground after 1 second?

How far is the ball from the ground after 4 seconds?

Create a model to describe the height of the ball.

Use your model to find the height of the ball after 10 seconds.



Add the effects of gravity to your model

$$y = -16x^2 + 72x + 6$$

How far is the ball from the ground at the moment you launch it?

How far is the ball from the ground after 1 second?

How far is the ball from the ground after 2 seconds?

How far is the ball from the ground after 3 seconds?

How far is the ball from the ground after 4 seconds?

How far is the ball from the ground after 10 seconds?

x	y
0	
1	
2	
3	
4	
5	
6	

