Name

Quadratic Equation Word Problem To Optimization (y) - Height over Ground

1 Given this equation for the height of a water jet as a function of distance from the fountain, what is the maximum height it reaches?

$$h(x) = -10x^2 + 4x + 7$$

A	$h = 5.4m$	B	$h = 9.4m$
C	$h = 7.4m$		

2 Given this equation for the height of a water jet as a function of distance from the fountain, what is the maximum height it reaches?

$$h(x) = -11x^2 + 2x + 2$$

A	$h = 2.091m$	B	$h = 3.091m$
C	$h = 6.091m$		

3 Given this equation for the height of a long jumper as a function of distance from the line, what is the maximum heigh they reach?

$$h(x) = -11x^2 + 9x + 5$$

A	$h = 5.841m$	B	$h = 10.841m$
C	$h = 6.841m$		

4 Given this equation for the height of a water jet as a function of distance from the fountain, what is the maximum height it reaches?

$$h(x) = -3x^2 + 9x + 11$$

A	$h = 17.75m$	B	$h = 22.75m$
C	$h = 19.75m$		

5 Given this equation for the height of a long jumper as a function of distance from the line, what is the maximum heigh they reach?

$$h(x) = -9x^2 + 8x + 8$$

A	$h = 12.778m$	B	$h = 11.778m$
C	$h = 9.778m$		

6 Given this equation for the height of a water jet as a function of distance from the fountain, what is the maximum height it reaches?

$$h(x) = -2x^2 + 7x + 4$$

A	$h = 5.125m$	B	$h = 10.125m$
C	$h = 12.125m$		

7 Given this equation for the height of a long jumper as a function of distance from the line, what is the maximum heigh they reach?

$$h(x) = -2x^2 + 7x + 6$$

A	$h = 12.125m$	B	$h = 9.125m$

8 Given this equation for the height of a long jumper as a function of distance from the line, what is the maximum heigh they reach?

$$h(x) = -4x^2 + 3x + 7$$

A	$h = 7.563m$	B	$h = 2.563m$
C	$h = 10.563m$		