



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?

$$h(x) = -5x^2 + 6x + 10$$

A $h = 11.8m$

B $h = 14.55m$

C $h = 10.8m$

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?

$$h(x) = -6x^2 + 4x + 7$$

A $h = 7.417m$

B $h = 7.667m$

3 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?

$$h(x) = -8x^2 + 8x + 10$$

A $h = 13.5m$

B $h = 14.5m$

C $h = 12m$

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

$$h(x) = -3x^2 + 4x + 8$$

A $h = 9.333m$

B $h = 10.583m$

C $h = 7.083m$

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

$$h(x) = -10x^2 + 6x + 2$$

A $h = 4.65m$

B $h = 2.4m$

C $h = 2.9m$

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?

$$h(x) = -10x^2 + 4x + 9$$

A $h = 11.65m$

B $h = 8.15m$

C $h = 9.4m$

7 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?

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

A $h = 11.031m$

B $h = 11.531m$

C $h = 9.531m$

8 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?

$$h(x) = -10x^2 + 4x + 3$$

A $h = 3.9m$

B $h = 3.4m$

C $h = 2.4m$