

Algebra 2
4-2a Standard Form
of Quadratic Function

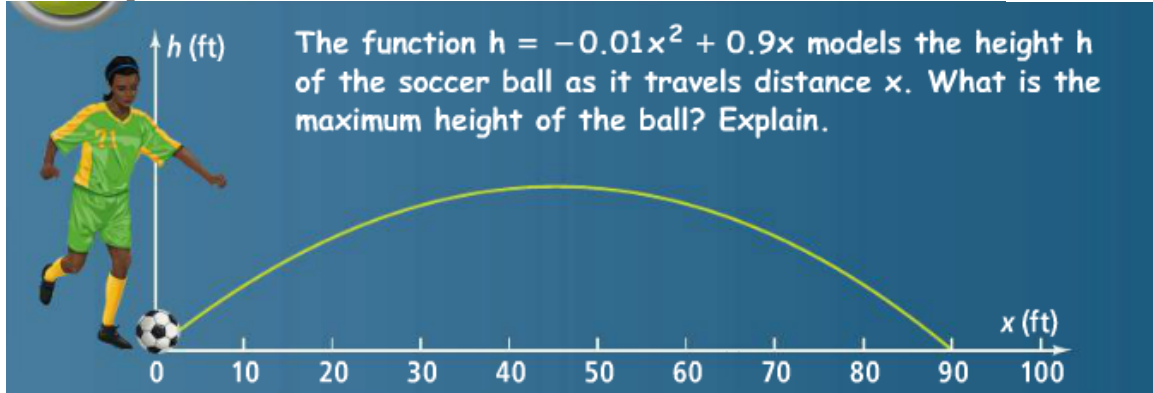
Name _____

Date _____ **A#5**

Goal: To graph quadratic functions written in standard form



Warm Up:



Explain:

Form	Vertex Form $y = a(x - h)^2 + k$	Standard Form $y = ax^2 + bx + c$
Characteristics		

Example: Find the equation of the axis of symmetry, the coordinates of the vertex, the maximum or minimum and the range of the parabola.		
Function	Axis of Symmetry	Vertex/Max or Min/Range
$y = 2x^2 + 4x - 5$ $a = \underline{\quad}$ $b = \underline{\quad}$ $c = \underline{\quad}$	$x = \frac{-b}{2a} = \frac{(\quad)}{2(\quad)} = \underline{\quad} = \underline{\quad}$ $x =$	$y = 2(\quad)^2 + 4(\quad) - 5$

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Practice: Find the equation of the axis of symmetry, the coordinates of the vertex, the maximum or minimum and the range of the parabola.

1. $y = x^2 - 10x + 2$

2. $y = x^2 + 12x - 9$

3. $y = -x^2 + 2x + 1$

4. $y = 3x^2 + 18x + 9$

5. $y = 3x^2 + 3$

6. $y = 16x - 4x^2$

10. $y = x^2 - 6x + 4$

11. $y = x^2 + 4x - 1$

12. $y = x^2 + 2x + 1$