

# Math 115E Activity 17

## Chapter 5 Quadratic Applications

### Properties of Quadratic Equations

#1 Given the Function  $f(x) = x^2 - 4x - 5$

- (a) Find the x-intercepts:
- (b) Find the y-intercepts:
- (c) Find the Vertex:
- (d) Find the Domain:
- (e) Find the Range:

#2 Given the Function  $g(x) = -2x^2 - 4x + 2$

- (a) Find the x-intercepts:
- (b) Find the y-intercepts:
- (c) Find the Vertex:
- (d) Find the Domain:
- (e) Find the Range:

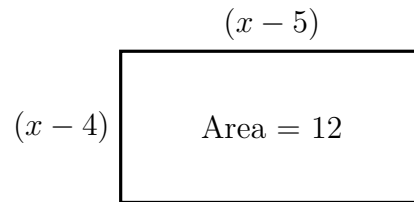
#3 Given the Function  $h(x) = 3x^2 - 6x$

- (a) Find the x-intercepts:
- (b) Find the y-intercepts:
- (c) Find the Vertex:
- (d) Find the Domain:
- (e) Find the Range:

## Quadratic Equations as an area of a rectangle

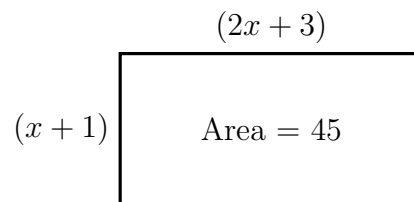
- #1 Given that the Area is 12, the Height is  $(x - 4)$  and the Length is  $(x - 5)$

Find the numerical length and height.



- #2 Given that the Area is 45, the Height is  $(x + 1)$  and the Length is  $(2x + 3)$

Find the numerical length and height.



- #3 Given that the Area is 64, the Height is  $(2x - 2)$  and the Length is  $(3x + 1)$

Find the numerical length and height.

