Math 115E Activity 16

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:

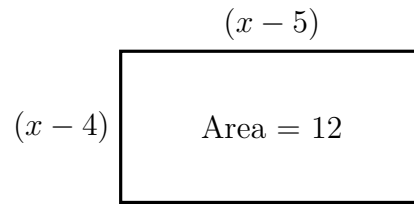   (d) Find the Domain:

    (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:
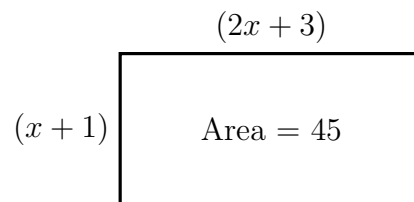
Quadratic Equations as an area of a rectangle

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

Find the numerical length and height.

$(x-5)$

$(x-4)$ | Area $= 12$

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

Find the numerical length and height.

$(2x + 3)$

$(x + 1)$ | Area $= 45$

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

Find the numerical length and height.

$(3x + 1)$

$(2x - 2)$ | Area $= 64$