

Levy Zaragustky I^{MB} Homework 1-1-1 Period 5

1-4 $F(x) = \frac{1}{x-2}$

a) $F(4) = \frac{1}{4-2} = \frac{1}{2}$

b) $F(x) = 1, \frac{1}{x-2} = 1, 1 = x-2, x = 3$

1-5 $x^2 + 2x + 1$

a) $F(3) = (3)^2 + 2(3) + 1 = 10 + 6 = 16$

b) $F(-4) = (-4)^2 + 2(-4) + 1 = 17 - 8 = 9$

c) $F(-22,872) = (-22,872)^2 + 2(-22,872) + 1 = 478,384,384$

1-6 $g(x) = |x-5|, h(x) = x^2 - 6$

a) $g(h(6)) = \sqrt{(6)^2 - 6} - 5 = 5$

 b) Yes if we do, $h(g(6))$

1-7

$2x = 7, x = 3.5$

a) $y = -2x + 7$

$y\text{-int: } (0, 7)$

$x\text{-int: } (3.5, 0)$

$\frac{3}{5}x = -1, 3x = -5, x = -\frac{5}{3}$

b) $y = \frac{3}{5}x + 1$

$y\text{-int: } (0, 1)$

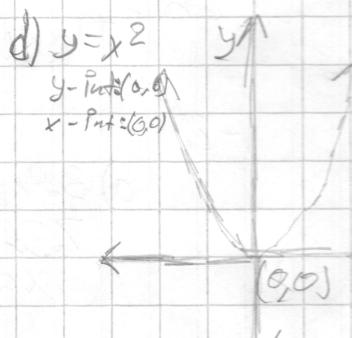
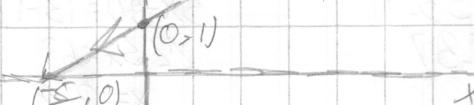
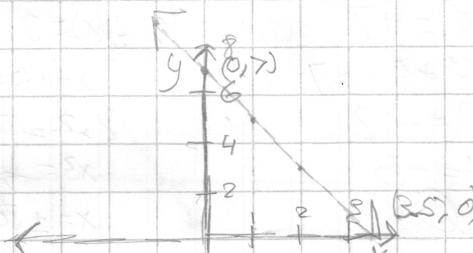
$x\text{-int: } (-\frac{5}{3}, 0)$

$\frac{3}{2}x = 3, 3x = 6$

c) $y = \frac{3}{2}x + 3$

$y\text{-int: } (0, 3)$

$x\text{-int: } (2, 0)$



1-8

a) It is quadratic not linear

b) The part where it squares the x

c) Quadratic

d) Dom R

 R: $y \geq 0$

1-9

$$a) 4(x-1) - 2(3x+5) = -3x - 1$$

$$4x - 4 - 6x - 10 + 3x + 1 = 0$$

$$x - 4 - 10 + 1 = 0$$

$$x - 13 = 0$$

$$\boxed{x = 13}$$

$$b) 3x - 5 = 2 \cdot 5x + 3 - (x - 4)$$

$$3x - 5 = 10x + 3 - x + 4$$

$$15x = 12$$

$$\frac{3}{5}x = 12$$

$$3x = 24$$

$$\boxed{x = 8}$$

1-10

$$a) (5m-1)(m+2)$$

$$5m^2 - 5m - m - 2$$

$$5m^2 - 6m - 2$$

$$b) (6-x)(2+x)$$

$$12 + 6x - 2x - x^2$$

$$12 + 4x - x^2$$

$$c) (5x-y)^2$$

$$25x^2 - 10xy + y^2$$

$$d) 3x(2x-5y+4)$$

$$6x^2 - 15xy + 12x$$