Bathroom breaks are to be taken before class!!

Do NOT move the desk!!

Turn your phone OFF!!

Put your phone up!!

Sit down!!

Be quiet!!

Prepare to work!!

Keep your hands to yourself!!

Chap 3 Sec 7

Translations & Reflections

$$y = a \cdot f(x - h) + k$$

move the graph → or ←

$|a|$ will shrink or stretch

when $a < 0$ or negative

move the graph ↑ or ↓

Translations

up or down is the "k" $\Rightarrow f(x) = x \pm k$, $k \neq 0$

if $k < 0$, moves down

if $k > 0$, moves up

Right or left is the "h" $\Rightarrow f(x) = (x - h)$, $h \neq 0$

if $h < 0$ move left

if $h > 0$ move Right

A

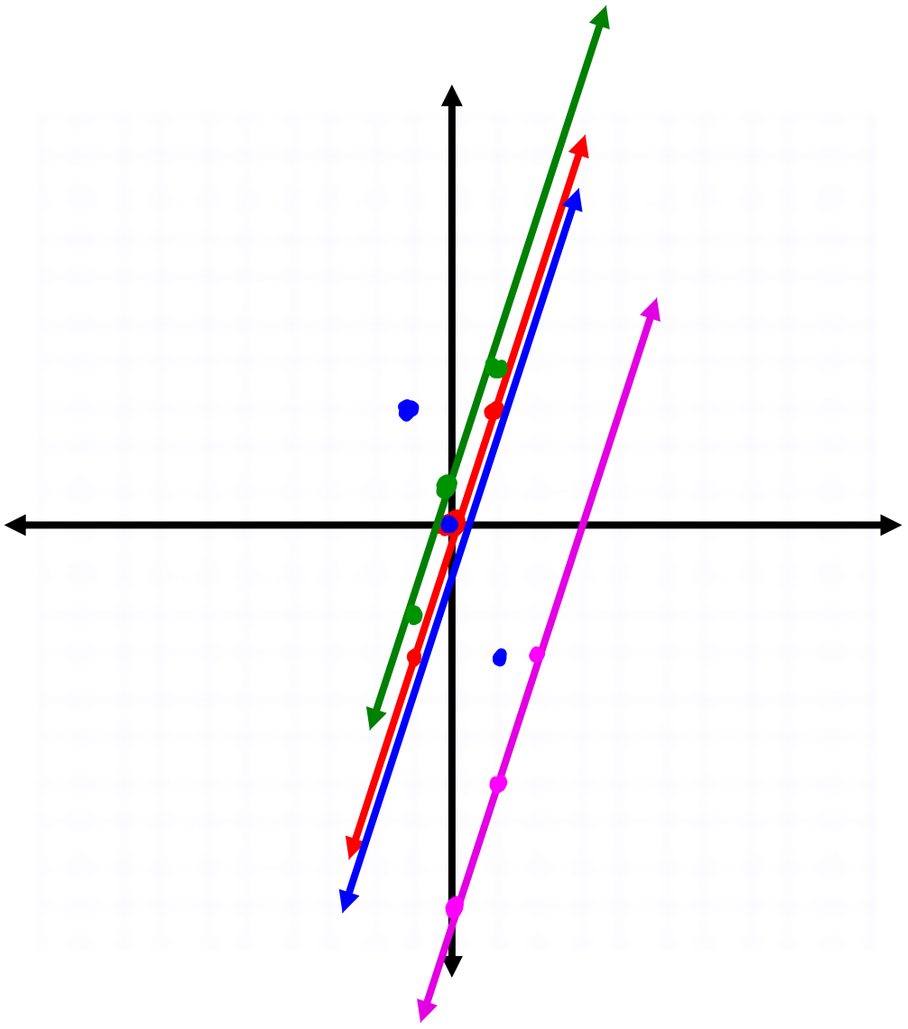
$y = 3x$

$y = 3x + 1$

$y = -3x$

$y = 3(x - 3)$

$y = 3x - 9$



Softbook Pg 43

1) $f(x) = \frac{1}{2}x$, $g(x) = f(x) - 2$

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

Shifts ↓ by 2

2) $f(x) = -4/x$; $g(x) = f(x-3)$

$g(x) = -4/(x-3)$

moves → 3

3) $f(x) = -x - 1$; $g(x) = f(x + 4)$

$f(x - h)$

$f(x - (-4))$

$h = -4$

~~$f(x) = -(x+4) - 1$~~

moves left 4

4) $f(x) = \frac{1}{3}x + 2$, $g(x) = f(x) + \frac{1}{2}$

$g(x) = \left(\frac{1}{3}x + 2\right) + \frac{1}{2}$

↑ ½