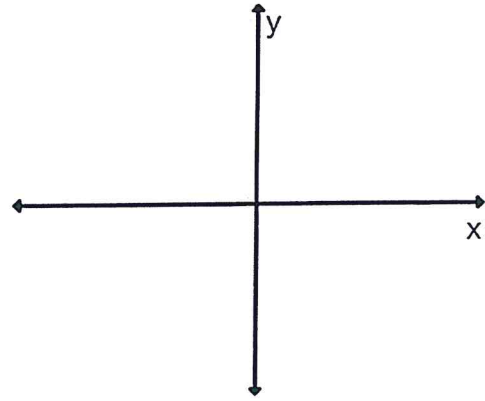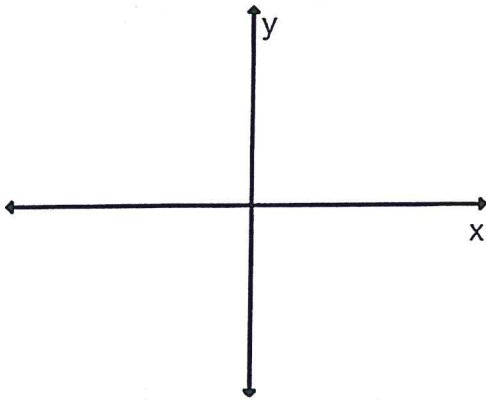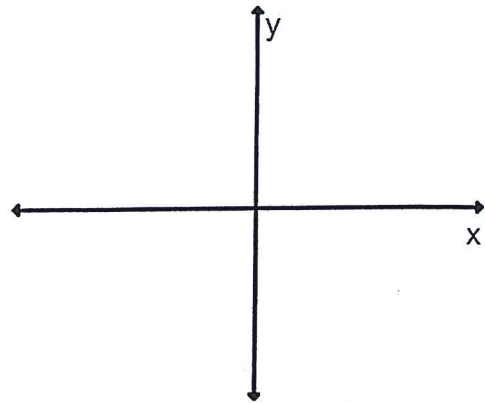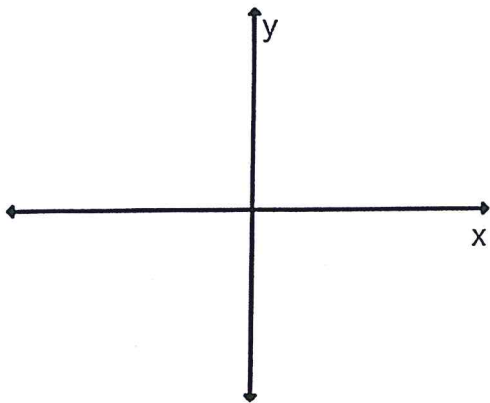# Bellwork   Alg 2A   Wednesday, May 24, 2017

Graph each Rational Function. Include all intercepts. Show all asymptotes as dashed lines. Put equations of asymptotes on the graph and place the value of each intercept on the graph.

1. $y = \dfrac{(x+5)(x-1)}{(x+3)(x-4)} = \dfrac{x^2+4x-5}{x^2-x-12}$

2. $y = \dfrac{-2(x-4)(x+1)}{(x-6)(x+2)} = \dfrac{-2x^2+6x+8}{x^2-4x-12}$

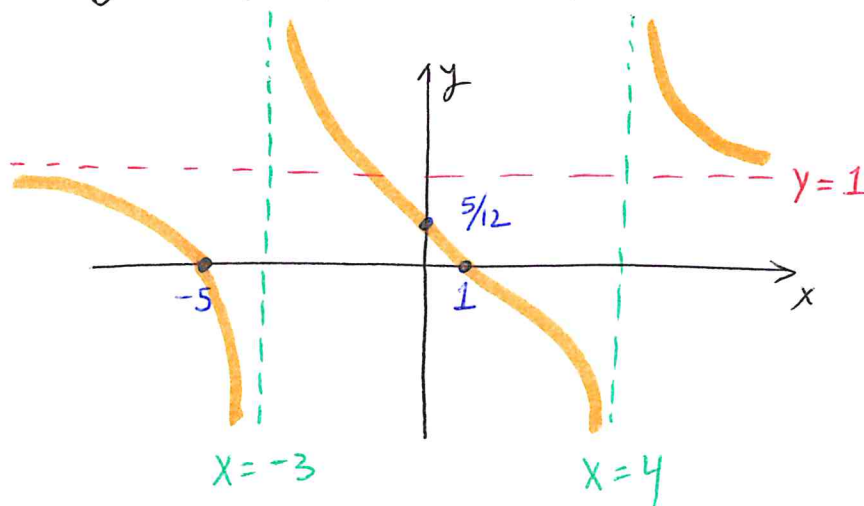Alg 2A   Bellwork   5-24-17   (Answers)

① $y = \dfrac{(x+5)(x-1)}{(x+3)(x-4)} = \dfrac{x^2+4x-5}{x^2-x-12}$

HA: $y=1$
y-int $= 5/12$
VA: $x = -3, 4$
x-int $= -5, 1$

$y=1$
$5/12$
-5
1
$x=-3$
$x=4$

② $y = \dfrac{-2(x-4)(x+1)}{(x-6)(x+2)} = \dfrac{-2x^2+6x+8}{x^2-4x-12}$

HA: $y=-2$
y-int $= -\dfrac{8}{12} = -\dfrac{2}{3}$
VA: $x = -2, 6$
x-int: $x = -1, 4$

-1
4
$-2/3$
$y=-2$
$x=-2$
$x=6$