You must complete this before retaking the MC again. Remember it is all about LEARNING so take your time and learn how to do these skills. If you need help please ask!

NAME:_____

Corrective Assignment 6.3

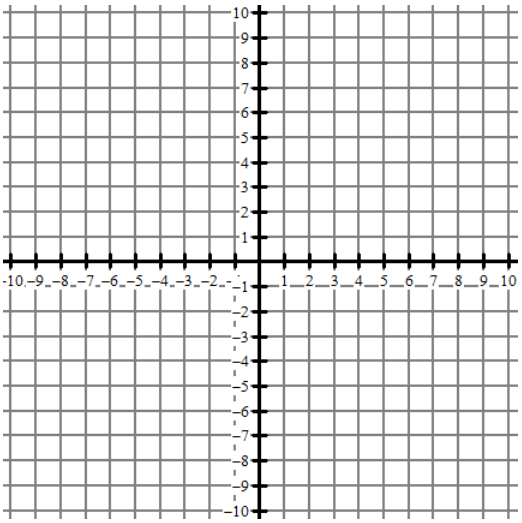
Directions: Find the information need and sketch. Include all relevant information on your graph.

1) $y = \frac{x^2-3x-4}{x-2}$

Hole/Vertical Asymptotes:

Y-Int: X-int:

Horizontal/Slant Asymptote:

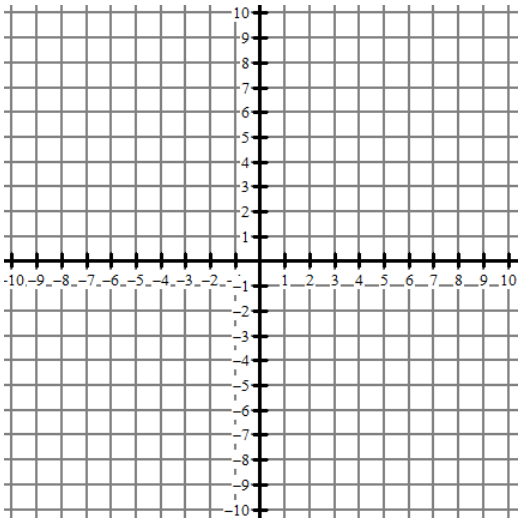


2) $y = \frac{3x^2+15x+18}{x^2+4x-5}$

Hole/Vertical Asymptotes:

Y-Int: X-int:

Horizontal/Slant Asymptote:

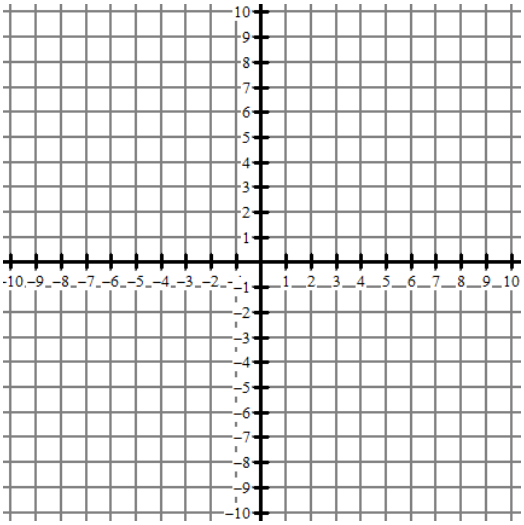


3) $y = \frac{3}{x^2-1}$

Hole/Vertical Asymptotes:

Y-Int: X-int:

Horizontal/Slant Asymptote:

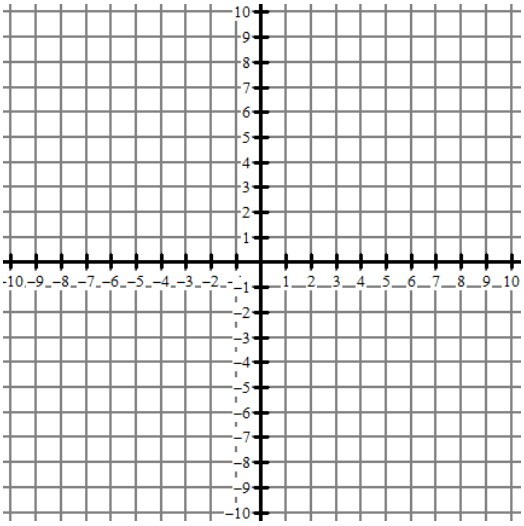


4) $y = \frac{x-4}{2-x}$

Hole/Vertical Asymptotes:

Y-Int: X-int:

Horizontal/Slant Asymptote:

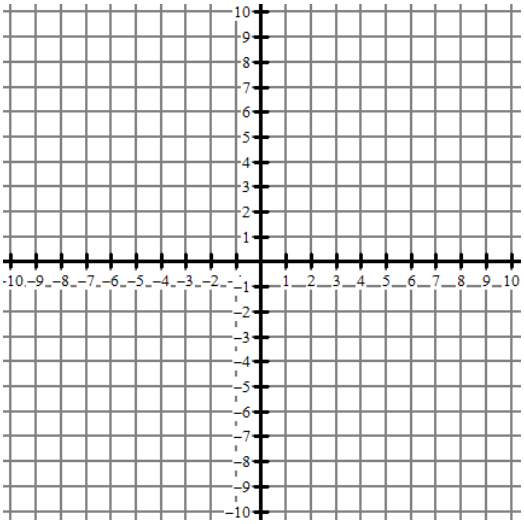


5) $y = \frac{2x^3+7x^2+3x}{x^2+4x+4}$

Hole/Vertical Asymptotes:

Y-Int: X-int:

Horizontal/Slant Asymptote:

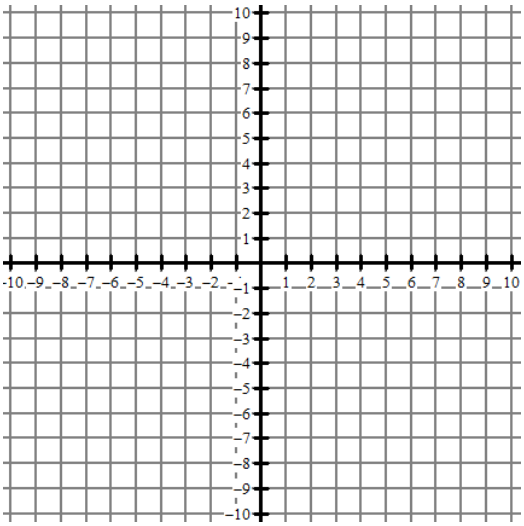


6) $y = \frac{x-3}{x^3+x^2-12x}$

Hole/Vertical Asymptotes:

Y-Int: X-int:

Horizontal/Slant Asymptote:



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NAME:_____

Corrective Assignment 6.3

Directions: Find the information need and sketch. Include all relevant information on your graph.

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

Hole/Vertical Asymptotes:

Vertical Asym: $x=2$

Y-Int: $\frac{0-0-4}{0-2} = \frac{-4}{-2} = 2$ $(0,2)$

X-int: $0 = \frac{(x-4)(x+1)}{x-2}$

$0 = (x-4)(x+1)$

$0 = x-4$ $4 = x$ $(4,0)$

$0 = x+1$ $-1 = x$ $(-1,0)$

Horizontal/Slant Asymptote:

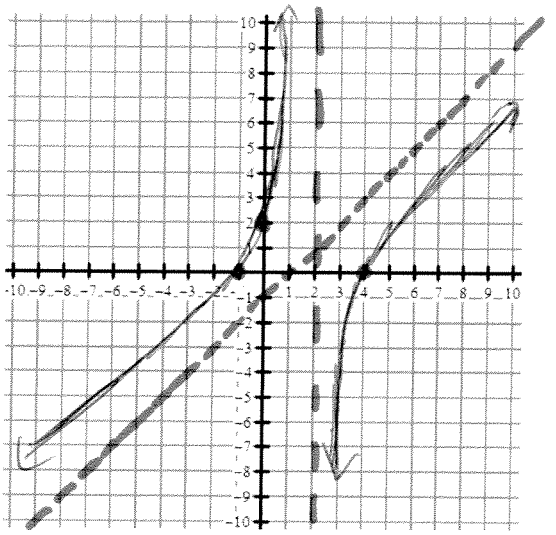
$x-2 \overline{)\, x^2-3x-4}$ $(x-1)$

x^2-2x

$-x-4$

$-x+2$

$y = x-1$



2) $y = \frac{3x^2+15x+18}{x^2+4x-5}$ $\frac{3(x+2)(x+3)}{(x+5)(x-1)}$

Hole/Vertical Asymptotes:

Vert. Asym: $x=-5$, $x=1$

Y-Int: $\frac{0+0+18}{0+0-5} = -3.6$ $(0,-3.6)$

X-int: $0 = \frac{3(x+2)(x+3)}{(x+5)(x-1)}$

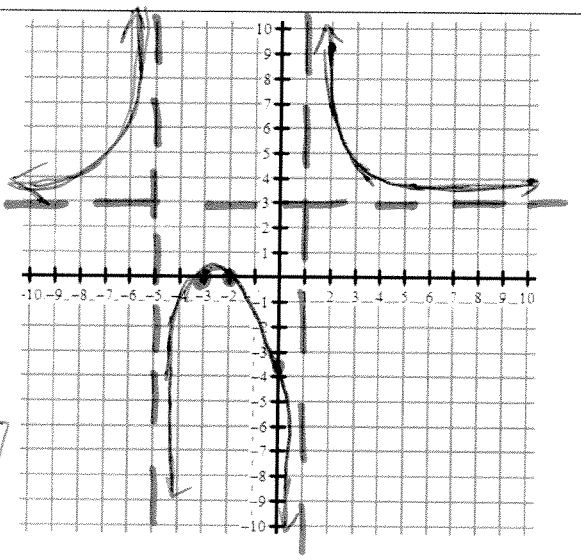
$0 = 3(x+2)(x+3)$

$x+2=0$ or $x+3=0$

$x=-2$ $(-2,0)$ $x=-3$ $(-3,0)$

Horizontal/Slant Asymptote:

$y=3$



3) $y = \frac{3}{x^2-1}$ $\frac{3}{(x-1)(x+1)}$

Hole/Vertical Asymptotes:

Vert Asym: $x=1$, $x=-1$

Y-Int: $\frac{3}{0-1} = \frac{3}{-1} = -3$ $(0,-3)$

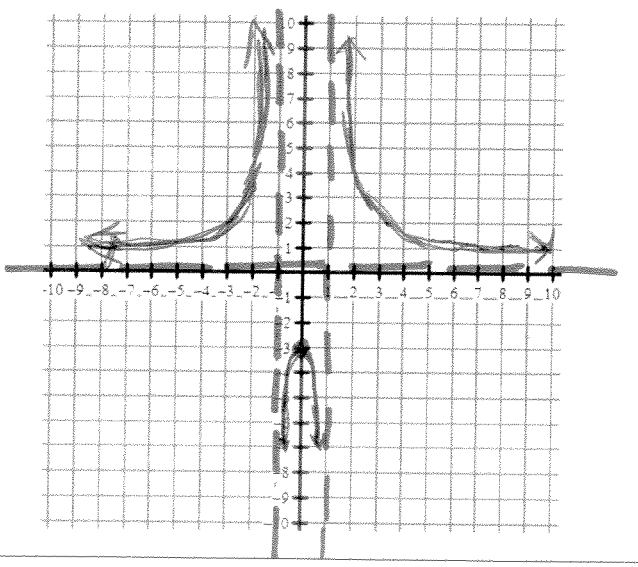
X-int: $0 = \frac{3}{x^2-1}$

$0 = 3$

NONE

Horizontal/Slant Asymptote:

$y=0$



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

Hole/Vertical Asymptotes:

$x = 2$ Vert Asym

Y-Int: $\frac{0-4}{2-0} = \frac{-4}{2} = -2$

$(0, -2)$

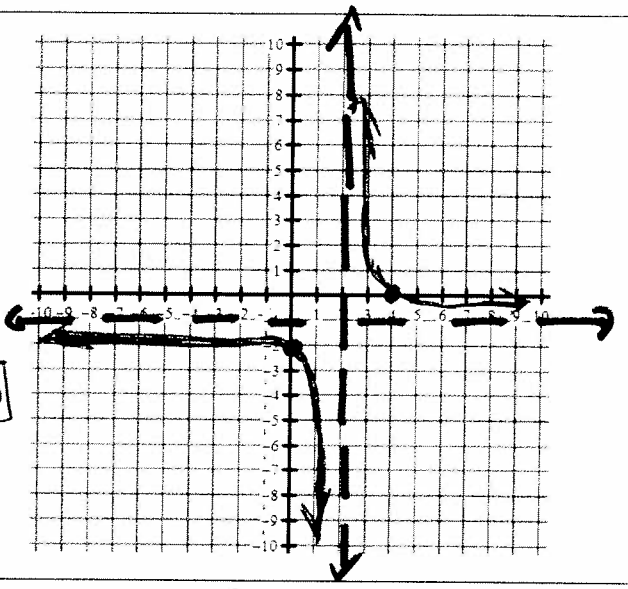
X-int: $0 = \frac{x-4}{-(x-2)}$

$0 = x-4$

$4 = x$ $(4,0)$

Horizontal/Slant Asymptote:

$y = -1$



5) $y = \frac{2x^3+7x^2+3x}{x^2+4x+4}$ $\frac{x(x+3)(2x+1)}{(x+2)(x+2)}$

Hole/Vertical Asymptotes:

Vert Asym: $x = -2$

Y-Int: $\frac{0+0+0}{0+0+4} = 0$

$(0,0)$

X-int: $0 = \frac{x(x+3)(2x+1)}{(x+2)(x+2)}$

$0 = x(x+3)(2x+1)$

$x = 0$ $x+3=0$ $2x+1=0$

$x = -3$ $x = -\frac{1}{2}$

$(0,0)$ $(-3,0)$ $(-\frac{1}{2},0)$

Horizontal/Slant Asymptote:

$$x^2+4x+4 \overline{)\,2x^3+7x^2+3x+0}$$

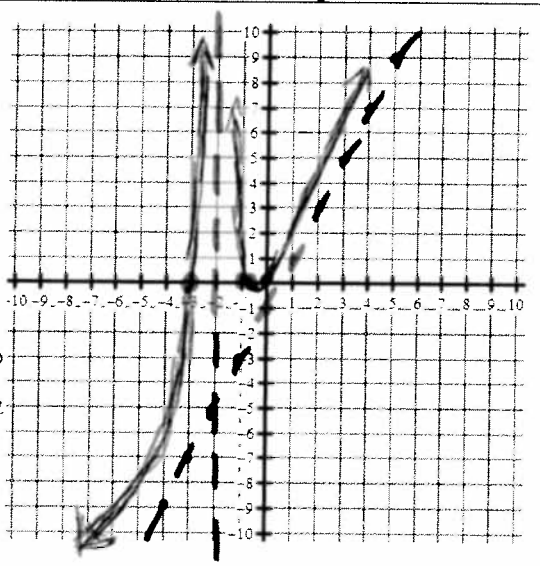
$$2x-1$$

$$2x^3+8x^2+8x$$

$$-x^2-5x+0$$

$$-x^2-4x-4$$

$y = 2x-1$



6) $y = \frac{x-3}{x^3+x^2-12x} = \frac{(x-3)}{x(x-3)(x+4)}$

Hole/Vertical Asymptotes:

Hole @ $x = 3$

Vert Asym: $x = 0$

$x = -4$

Y-Int: $\frac{-3}{0+0+0} = \frac{-3}{0}$

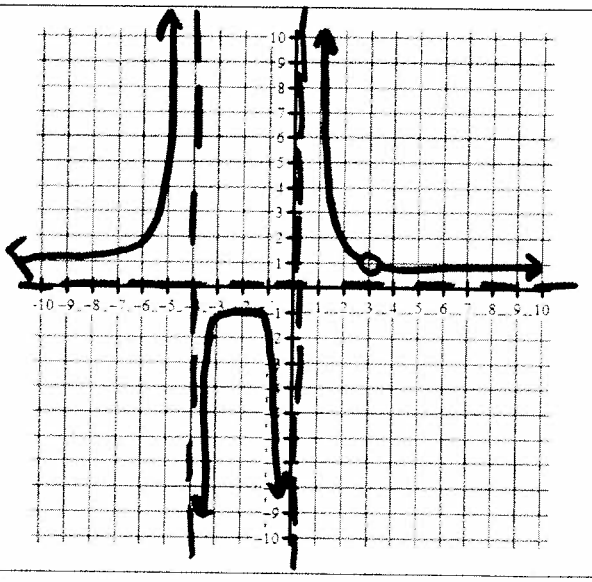
NONE

X-int: $0 = \frac{1}{x(x+4)}$

$0 = 1$ NONE

Horizontal/Slant Asymptote:

$y = 0$



ANSWERS TO CORRECTIVE ASSIGNMENT: