

4.4 The Graph of a Rational Function

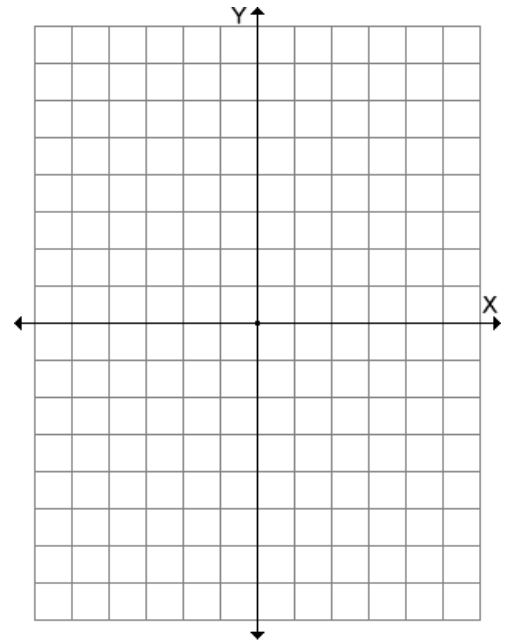
EXAMPLE: Find the intercepts, asymptotes, and graph of $y = \frac{x+1}{x^2-9}$.

x-int: set top equal to zero

y-int: 0 for x.

V.A.: Set bottom equal to zero

H.A.: (Rules)



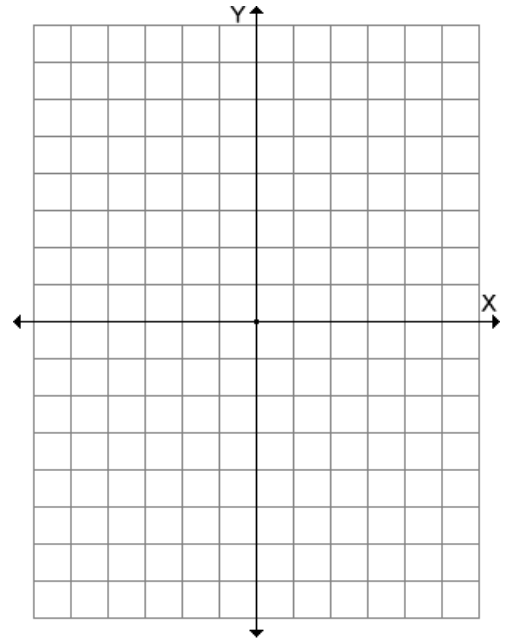
EXAMPLE: Find the intercepts, asymptotes, and graph of $y = \frac{2x^2 + 4x}{x^2 + 2x - 15}$.

x-int: set top equal to zero

y-int: 0 for x.

V.A.: Set bottom equal to zero

H.A.: (Rules)



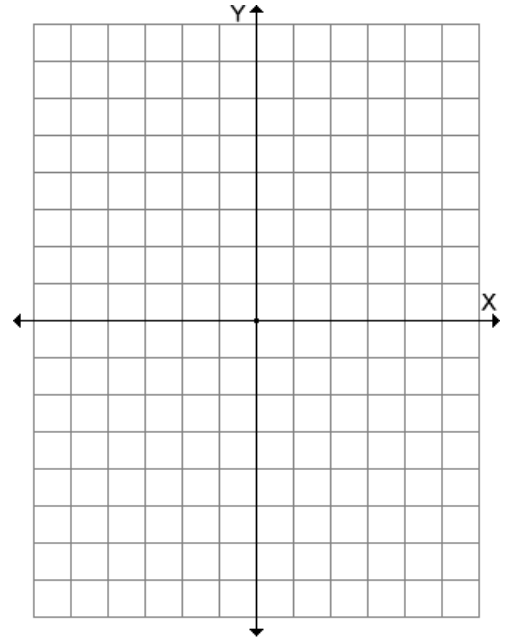
EXAMPLE: Find the intercepts, asymptotes, and graph of $y = \frac{x}{x^2 - 4}$.

x-int: set top equal to zero

y-int: 0 for x.

V.A.: Set bottom equal to zero

H.A.: (Rules)



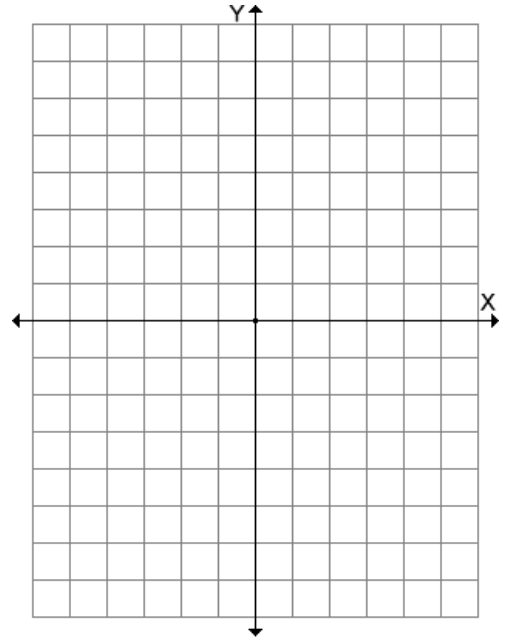
EXAMPLE: Find the intercepts, asymptotes, and graph of $y = \frac{x^2 - 4}{x}$.

x-int: set top equal to zero

y-int: 0 for x.

V.A.: Set bottom equal to zero

H.A.: (Rules)



EXAMPLE: Find the intercepts, asymptotes, and graph of $y = \frac{3x^2 - 10x - 8}{x^2 - 16}$.

x-int: set top equal to zero

y-int: 0 for x.

V.A.: Set bottom equal to zero

H.A.: (Rules)

