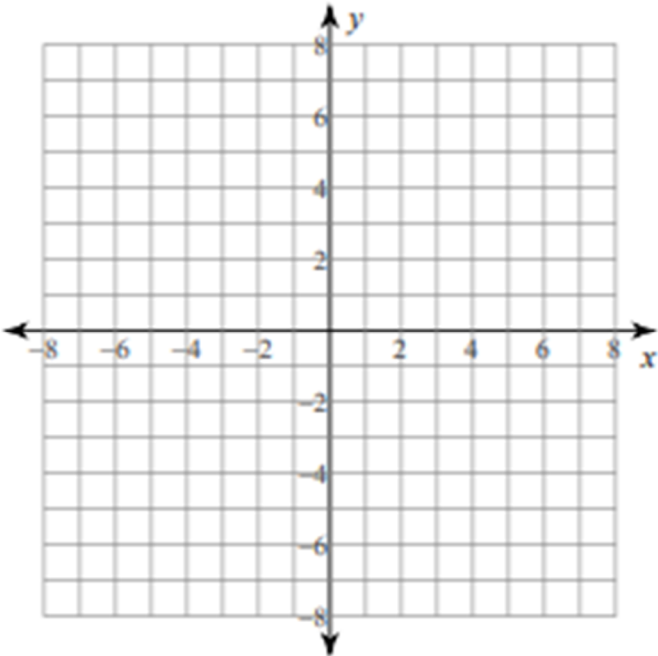


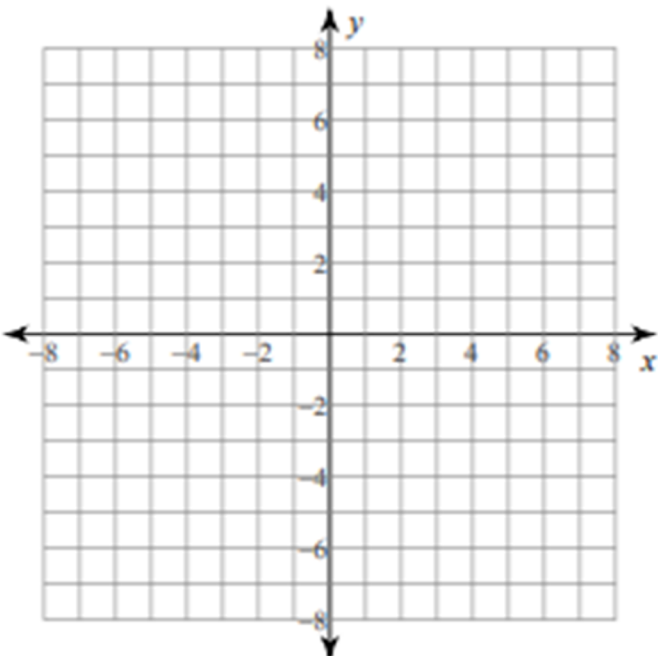
**PRECALCULUS**  
**GRAPHING RATIONAL FUNCTIONS**  
**DAY \_\_\_\_\_**

**NAME**  
**DATE**  
**BLOCK**

2.3 p. 124 # 27, 30, 43, 47, 49, 51, 53, 55 plus the problems below:

Find the indicated asymptotes, holes, intercepts and domain for each of the following rational functions. Then draw a careful sketch of each using what you found.

<p>1)</p> $f(x) = \frac{x + 4}{-2x - 6}$ <p>Vertical Asymptote:</p> <p>Horizontal or Slant Asymptote:</p> <p>Hole(s):</p> <p>x-intercept:</p> <p>y-intercept:</p> <p>Domain:</p>	
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<p>2)</p> $f(x) = \frac{x^3 - 9x}{3x^2 - 6x - 9}$ <p>Vertical Asymptote:</p> <p>Horizontal or Slant Asymptote:</p> <p>Hole(s):</p> <p>x-intercept:</p> <p>y-intercept:</p> <p>Domain:</p>	
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3)

$$f(x) = \frac{x^2 + 2x}{-4x + 8}$$

Vertical Asymptote:

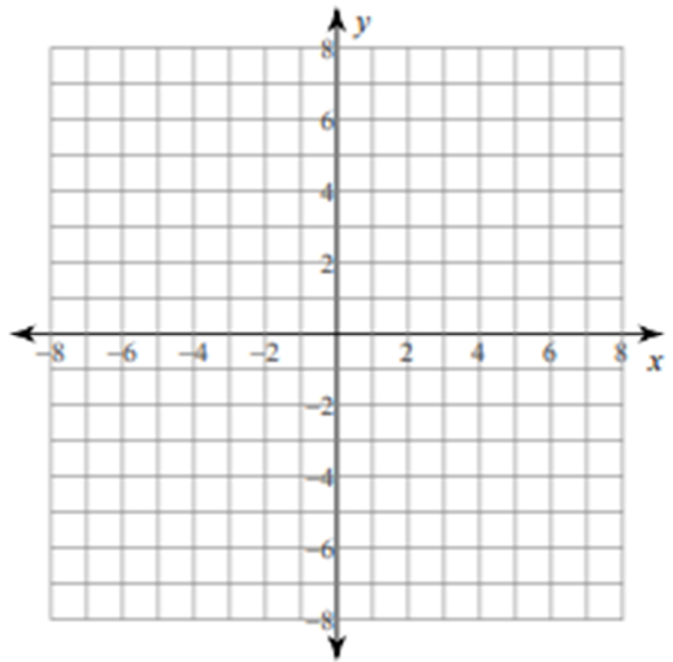
Horizontal or Slant Asymptote:

Hole(s):

x-intercept:

y-intercept:

Domain:



4)

$$f(x) = \frac{2x^2 + 10x + 12}{x^2 + 3x + 2}$$

Vertical Asymptote:

Horizontal or Slant Asymptote:

Hole(s):

x-intercept:

y-intercept:

Domain:

