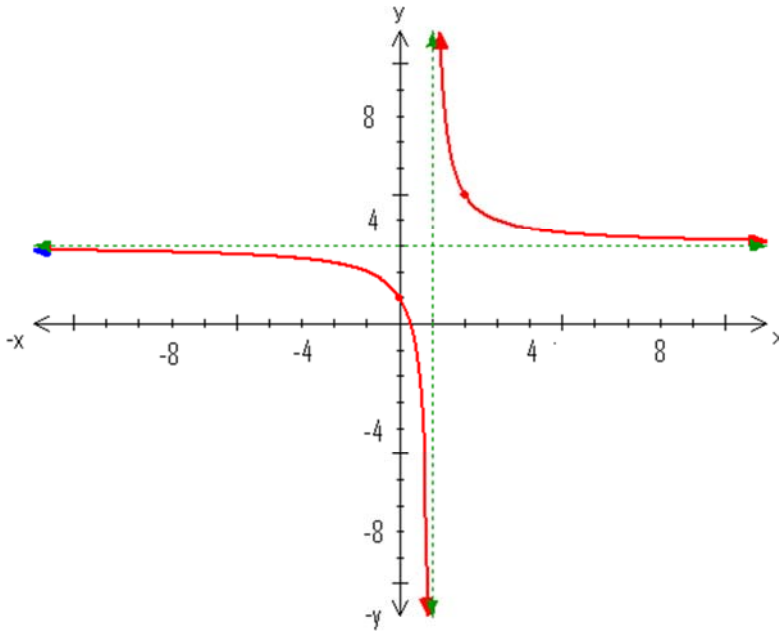


Key Features of Rational Functions

Part I:

From the graphs below, determine key features:

1.



Horizontal asymptote:

Vertical asymptote(s):

X-intercept(s):

Domain:

Range:

A Possible Equation:

2.

Horizontal asymptote:

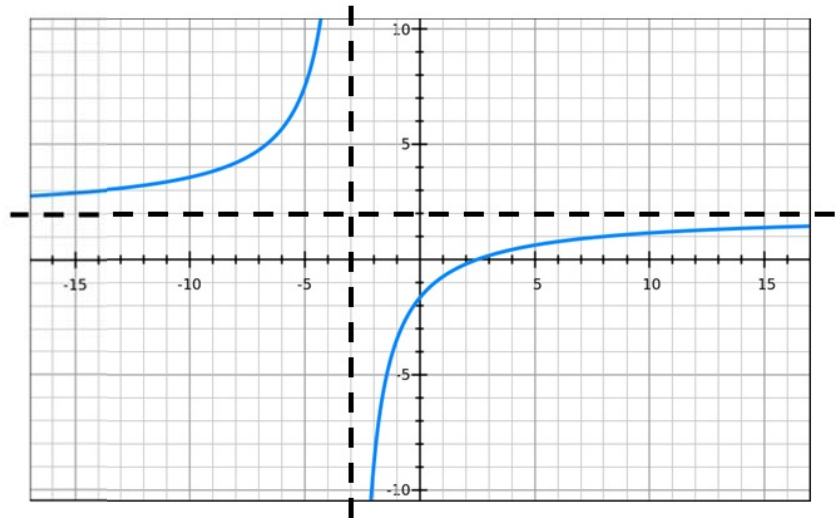
Vertical asymptote(s):

X-intercept(s):

Domain:

Range:

A Possible Equation:



Part II:

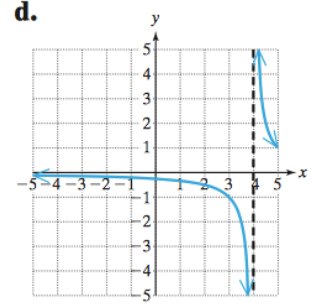
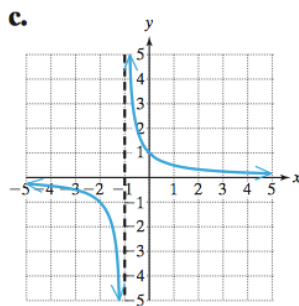
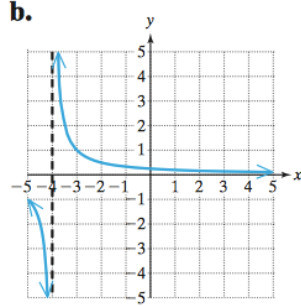
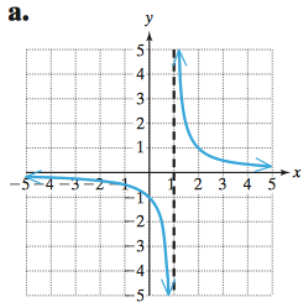
For questions #3-6, match the graph with the correct function:

3. $m(x) = \frac{1}{x+4}$ _____

4. $n(x) = \frac{1}{x+1}$ _____

5. $q(x) = \frac{1}{x-4}$ _____

6. $p(x) = \frac{1}{x-1}$ _____



Part III:

For questions #7-10, determine key features from the equations below.

7. $y = \frac{x^2 - 11x + 10}{x - 3}$

Horizontal Asymptote:

Vertical Asymptote(s):

X-intercept(s):

Domain:

Range:

8. $y = \frac{4}{x - 5} + 6$

Horizontal Asymptote:

Vertical Asymptote(s):

X-intercept(s):

Domain:

Range:

9. $y = \frac{x^2 - 5x + 6}{x^2 - 7x + 12}$

Horizontal Asymptote:

Vertical Asymptote(s):

X-intercept(s):

Domain:

Range:

10. $y = \frac{6x - 30}{x^2 - 13x + 30}$

Horizontal Asymptote:

Vertical Asymptote(s):

X-intercept(s):

Domain:

Range: