

Math 3

Graphing Rational Functions

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

Find each of the following for each function.

1.  $f(x) = \frac{2x}{x+3}$

Point(s) of discontinuity

Domain

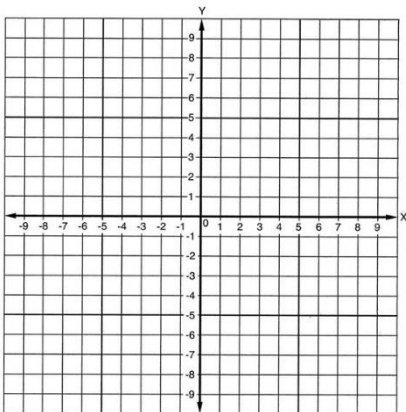
Zeros(s):

y-intercept:

Holes:

Vertical Asymptotes:

Horizontal Asymptotes:



2.  $g(x) = \frac{x-2}{x^2-2x-3}$

Point(s) of discontinuity

Domain

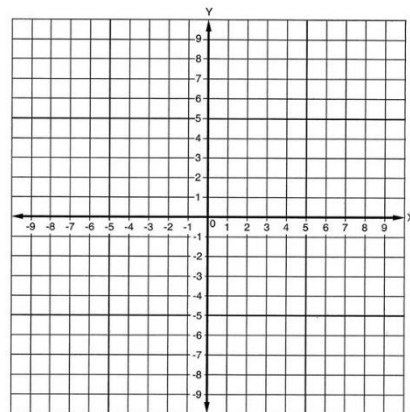
Zeros(s):

y-intercept:

Holes:

Vertical Asymptotes:

Horizontal Asymptotes:



$$3. f(x) = \frac{-3}{x}$$

Point(s) of discontinuity

Domain

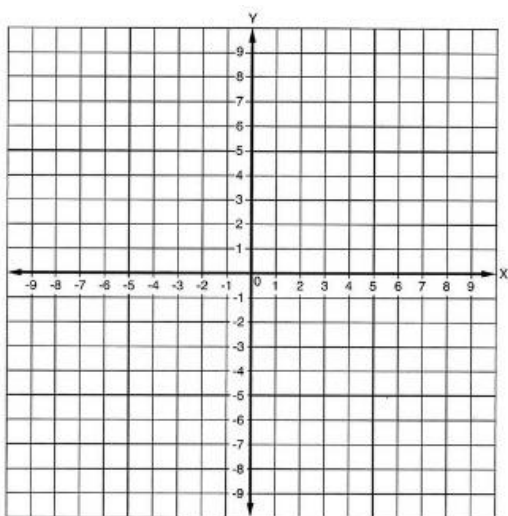
Zeros(s):

y-intercept:

Holes:

Vertical Asymptotes:

Horizontal Asymptotes:



$$4. g(x) = \frac{x^2 + 4x + 3}{x^2 - 5x + 6}$$

Point(s) of discontinuity

Domain

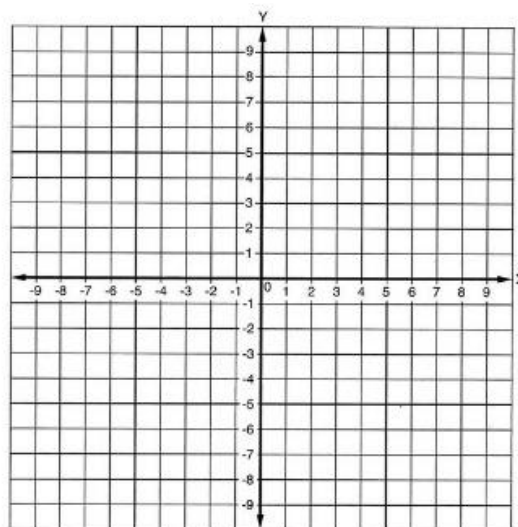
Zeros(s):

y-intercept:

Holes:

Vertical Asymptotes:

Horizontal Asymptotes:



$$5. f(x) = \frac{2x-3}{2x^2+x-6}$$

Point(s) of discontinuity

Domain

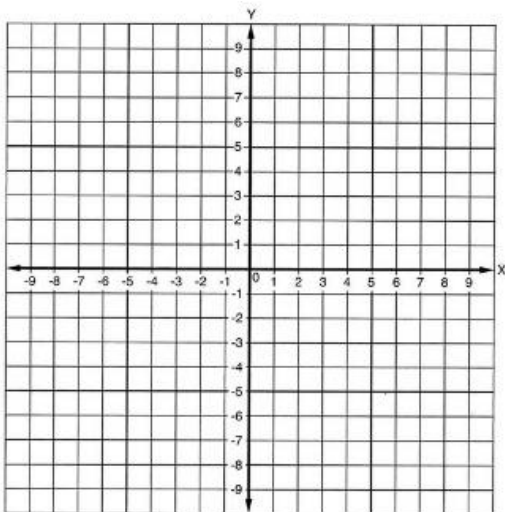
Zeros(s):

y-intercept:

Holes:

Vertical Asymptotes:

Horizontal Asymptotes:



$$6. g(x) = \frac{x^2+7x+12}{x+3}$$

Point(s) of discontinuity

Domain

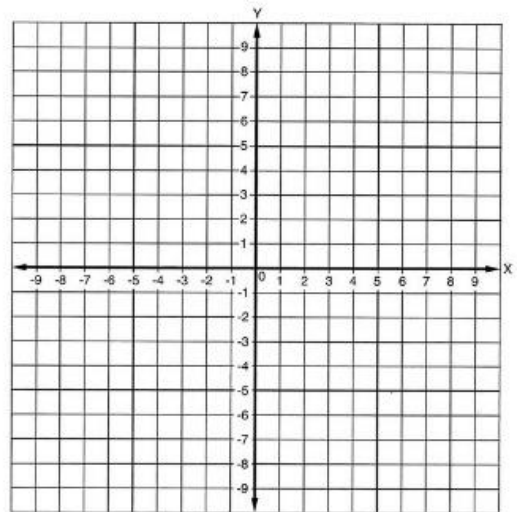
Zeros(s):

y-intercept:

Holes:

Vertical Asymptotes:

Horizontal Asymptotes:



$$7. f(x) = \frac{x^2 - 4x - 21}{x^2 - 49}$$

Point(s) of discontinuity

Domain

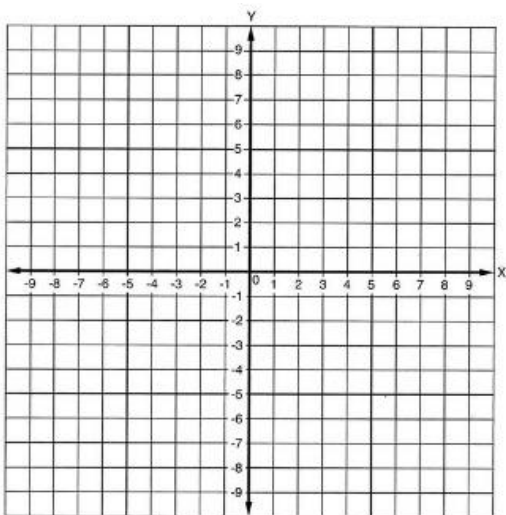
Zeros(s):

y-intercept:

Holes:

Vertical Asymptotes:

Horizontal Asymptotes:



$$8. g(x) = \frac{5}{x^2 - 3x - 15}$$

Point(s) of discontinuity

Domain

Zeros(s):

y-intercept:

Holes:

Vertical Asymptotes:

Horizontal Asymptotes:

