

Name : _____

Score : _____

Teacher : _____

Date : _____

Graphing Simple Rational Functions

Find the vertical and horizontal asymptotes as well as the domain and range.

1) $f(x) = \frac{-1}{x-1}$

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

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

4) $f(x) = \frac{-1}{x+1}$

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

6) $f(x) = \frac{-2}{x}$

7) $f(x) = \frac{-4}{x-3} + 3$

8) $f(x) = \frac{-3}{x-1} - 1$



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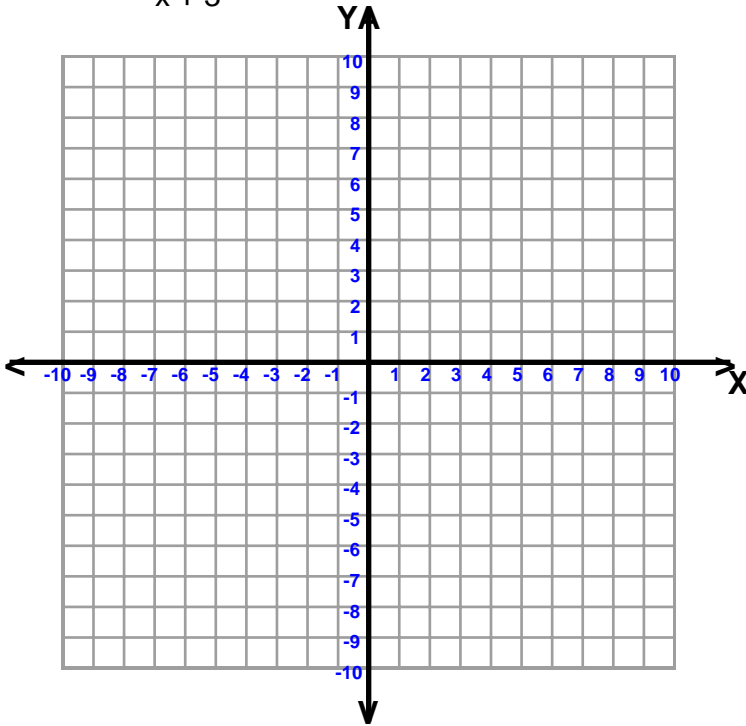
Teacher : _____

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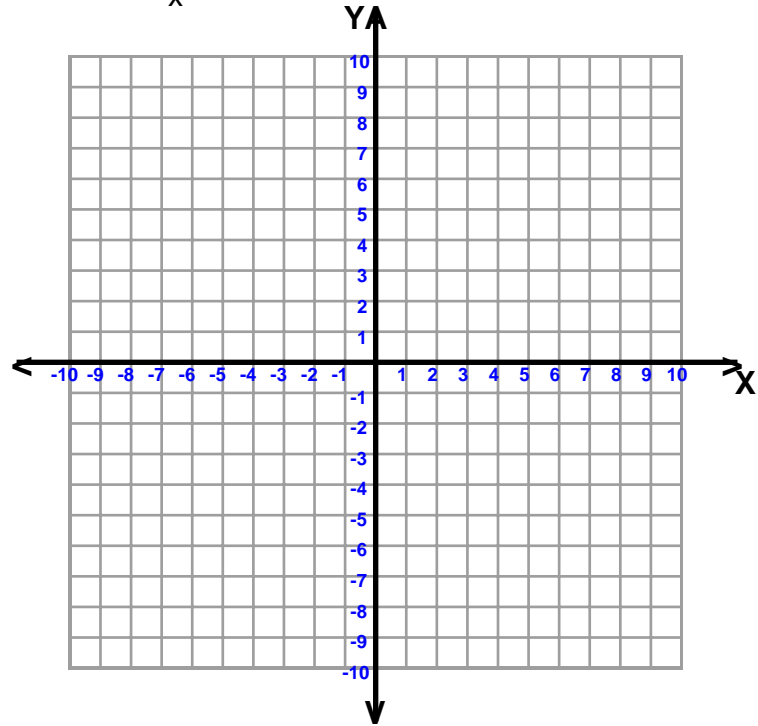
Graphing Simple Rational Functions

Graph the given function

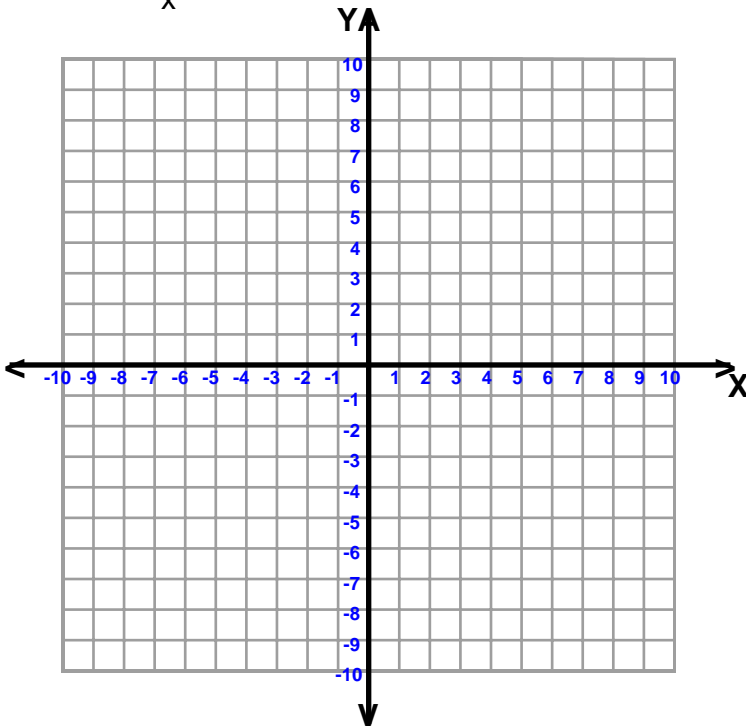
9) $f(x) = \frac{-1}{x+3} + 3$



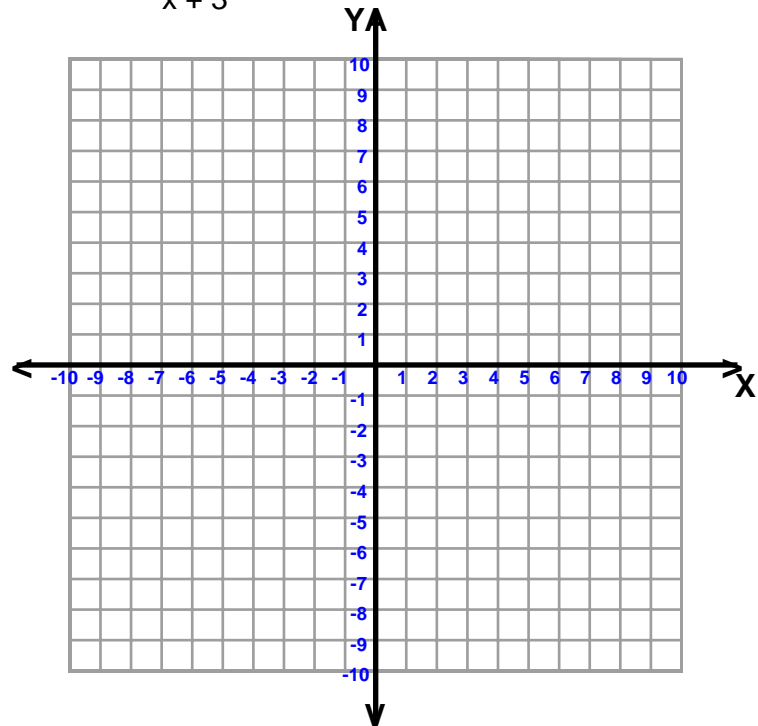
10) $f(x) = \frac{-4}{x}$



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



12) $f(x) = \frac{-1}{x+3}$



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Graphing Simple Rational Functions

Find the vertical and horizontal asymptotes as well as the domain and range.

1) $f(x) = \frac{-1}{x-1}$

Vertical Asym. : $x = 1$

Horizontal Asym. : $y = 0$

Domain : All Reals except 1

Range : All Reals except 0

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

Vertical Asym. : $x = 0$

Horizontal Asym. : $y = 0$

Domain : All Reals except 0

Range : All Reals except 0

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

Vertical Asym. : $x = -1$

Horizontal Asym. : $y = -1$

Domain : All Reals except -1

Range : All Reals except -1

4) $f(x) = \frac{-1}{x+1}$

Vertical Asym. : $x = -1$

Horizontal Asym. : $y = 0$

Domain : All Reals except -1

Range : All Reals except 0

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

Vertical Asym. : $x = 0$

Horizontal Asym. : $y = 0$

Domain : All Reals except 0

Range : All Reals except 0

6) $f(x) = \frac{-2}{x}$

Vertical Asym. : $x = 0$

Horizontal Asym. : $y = 0$

Domain : All Reals except 0

Range : All Reals except 0

7) $f(x) = \frac{-4}{x-3} + 3$

Vertical Asym. : $x = 3$

Horizontal Asym. : $y = 3$

Domain : All Reals except 3

Range : All Reals except 3

8) $f(x) = \frac{-3}{x-1} - 1$

Vertical Asym. : $x = 1$

Horizontal Asym. : $y = -1$

Domain : All Reals except 1

Range : All Reals except -1



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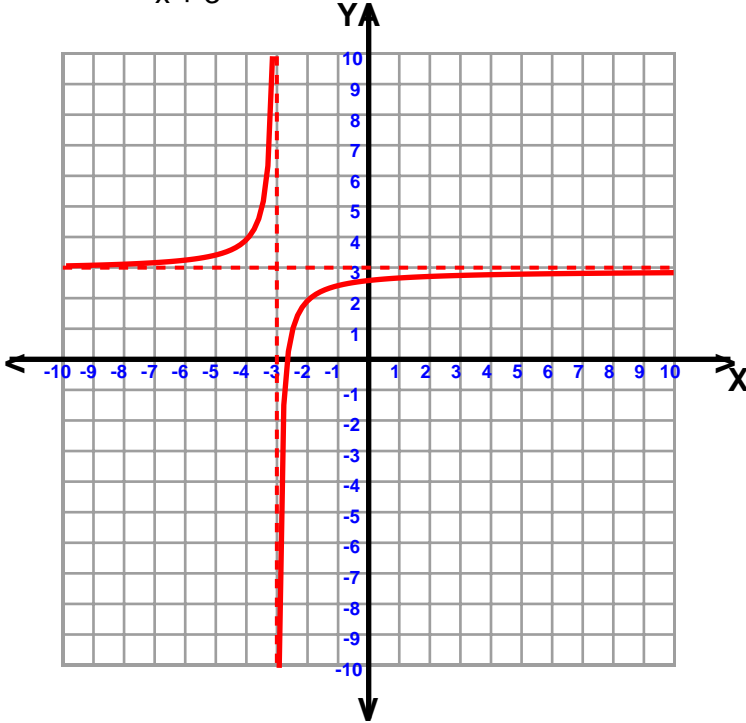
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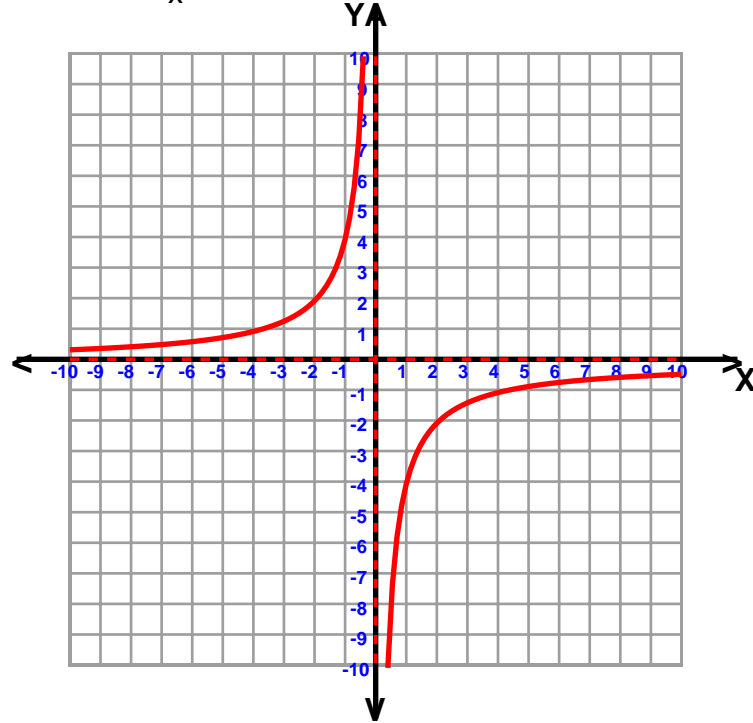
Graphing Simple Rational Functions

Find the vertical and horizontal asymptotes as well as the domain and range.

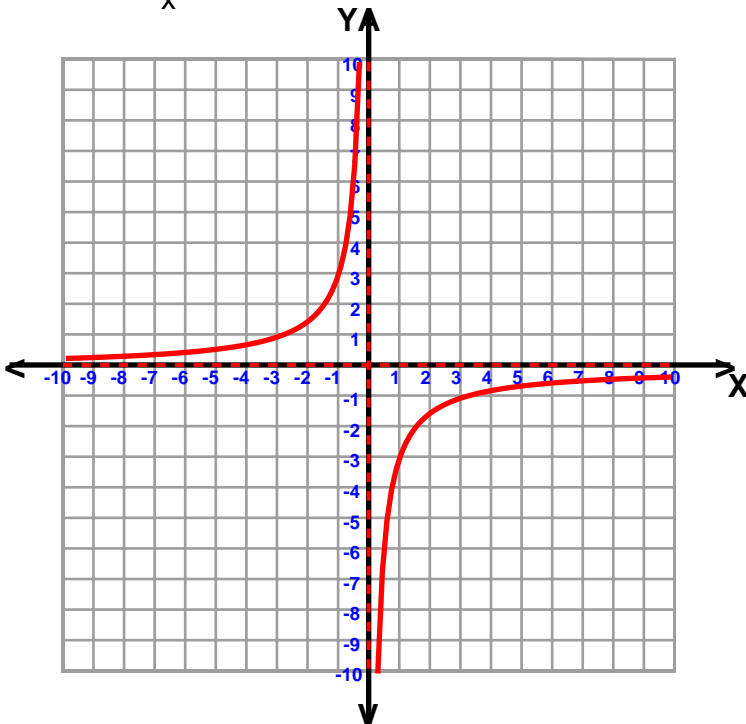
9) $f(x) = \frac{-1}{x+3} + 3$



10) $f(x) = \frac{-4}{x}$



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12) $f(x) = \frac{-1}{x+3}$

