



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

### GRAPHING RATIONAL FUNCTIONS WORKSHEET #1

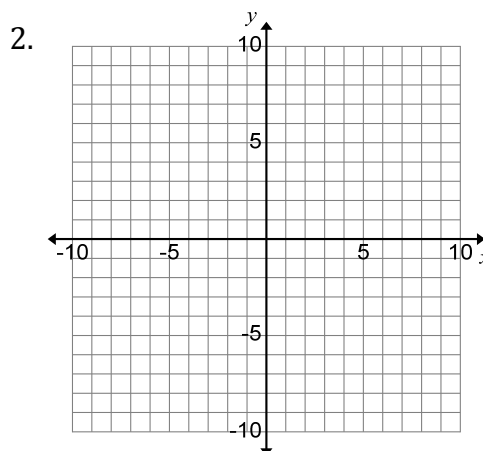
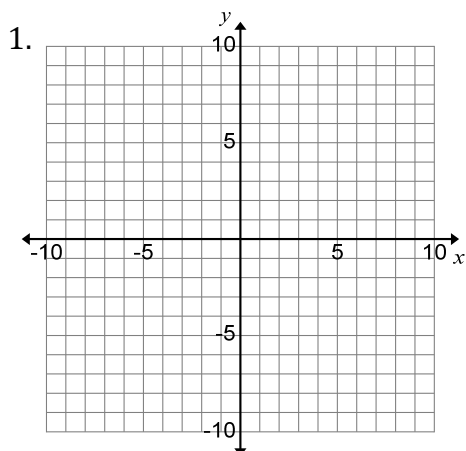
Identify the domain, range, horizontal and vertical asymptote(s), and the x and y-intercepts for each function below. Then, graph the function.

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

Domain:	Range:	Horizontal Asymptotes:
Vertical Asymptotes:	x-intercept:	y-intercept:

2.  $f(x) = \frac{5x}{x-1}$

Domain:	Range:	Horizontal Asymptotes:
Vertical Asymptotes:	x-intercept:	y-intercept:

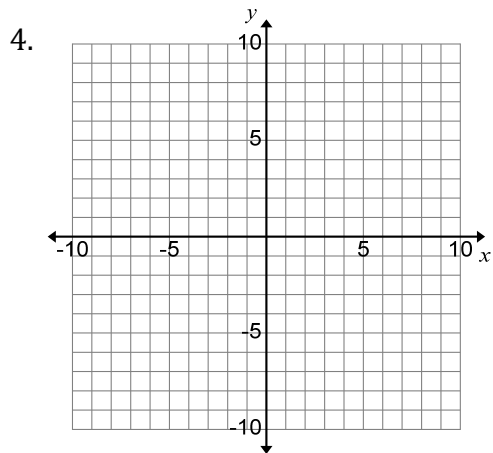
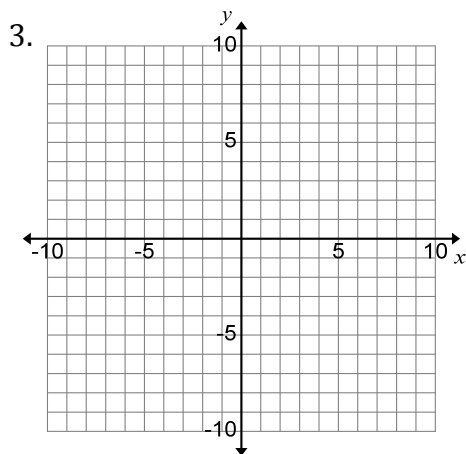


$$3. f(x) = \frac{3x^2}{x^2-1}$$

Domain:	Range:	Horizontal Asymptotes:
Vertical Asymptotes:	x-intercept:	y-intercept:

$$4. f(x) = \frac{4x}{x^2-1}$$

Domain:	Range:	Horizontal Asymptotes:
Vertical Asymptotes:	x-intercept:	y-intercept:

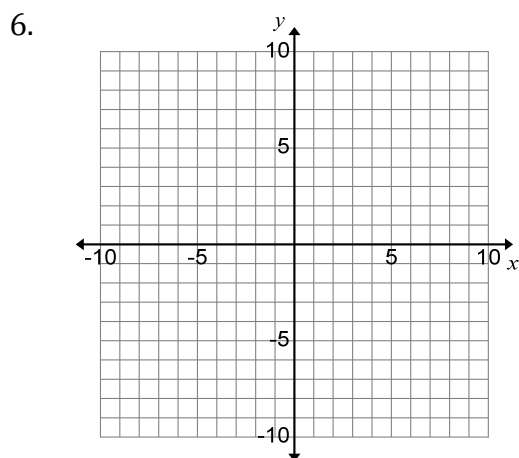
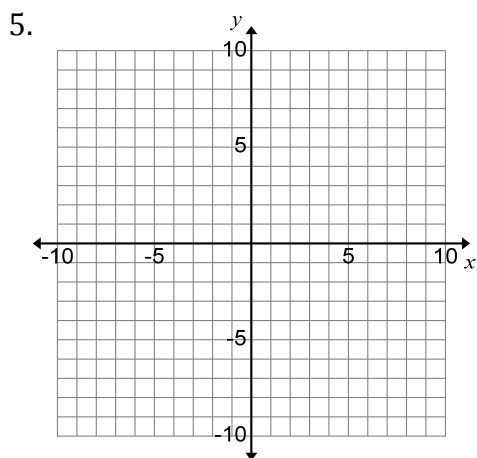


$$5. f(x) = \frac{2}{x+3}$$

Domain:	Range:	Horizontal Asymptotes:
Vertical Asymptotes:	x-intercept:	y-intercept:

$$6. f(x) = \frac{x-1}{x-4}$$

Domain:	Range:	Horizontal Asymptotes:
Vertical Asymptotes:	x-intercept:	y-intercept:



7.  $f(x) = -\frac{x+2}{x+4}$

Domain:	Range:	Horizontal Asymptotes:
Vertical Asymptotes:	x-intercept:	y-intercept:

7.

