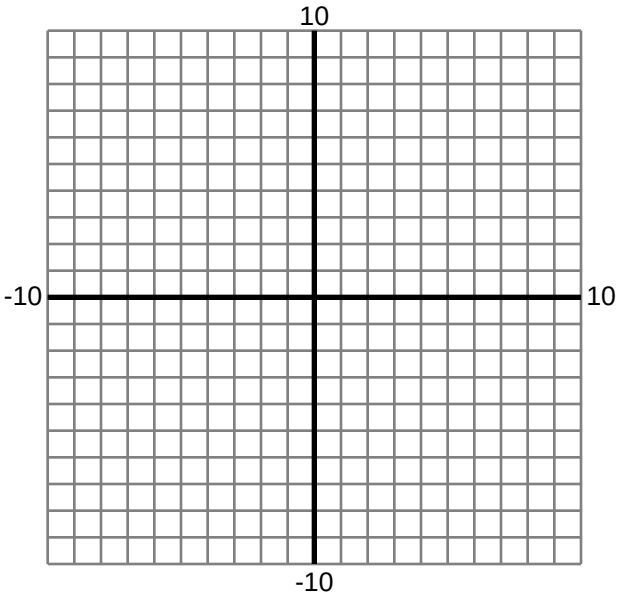
Name : _____ Score : _____

Teacher : _____ Date : _____

# Graphing Functions

**Fill in the properties of each function. Then, graph it.**

1) $f(x) = \frac{3x-4}{2x^2}$




X-intercepts:

Y-intercept:

X-Values of Inflection Points:

X-Values of Critical Points:

Intervals Where Decreasing:

Intervals Where Increasing:

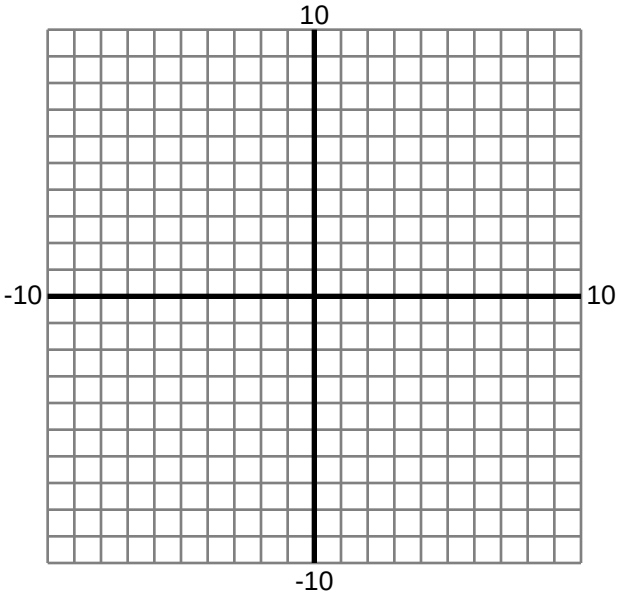
Intervals Where Concave Up:

Intervals Where Concave Down:

Relative Minima:

Relative Maxima

2) $f(x) = \frac{1}{3}x^3 - 2x^2 - 5x$




X-intercepts:

Y-intercept:

X-Values of Inflection Points:

X-Values of Critical Points:

Intervals Where Decreasing:

Intervals Where Increasing:

Intervals Where Concave Up:

Intervals Where Concave Down:

Relative Minima:

Relative Maxima

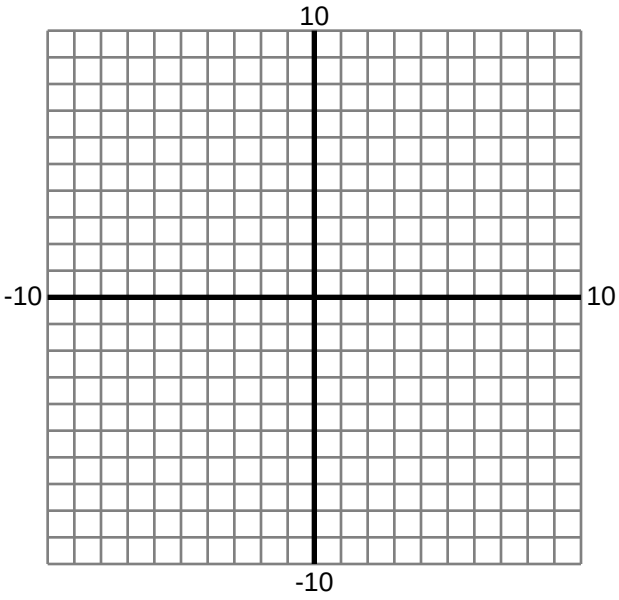
Name : _____ Score : _____

Teacher : _____ Date : _____

# Graphing Functions

**Fill in the properties of each function. Then, graph it.**

3) $f(x) = \frac{1}{6}x^3 + \frac{1}{2}x^2 + \frac{1}{2}x$




X-intercepts:

Y-intercept:

X-Values of Inflection Points:

X-Values of Critical Points:

Intervals Where Decreasing:

Intervals Where Increasing:

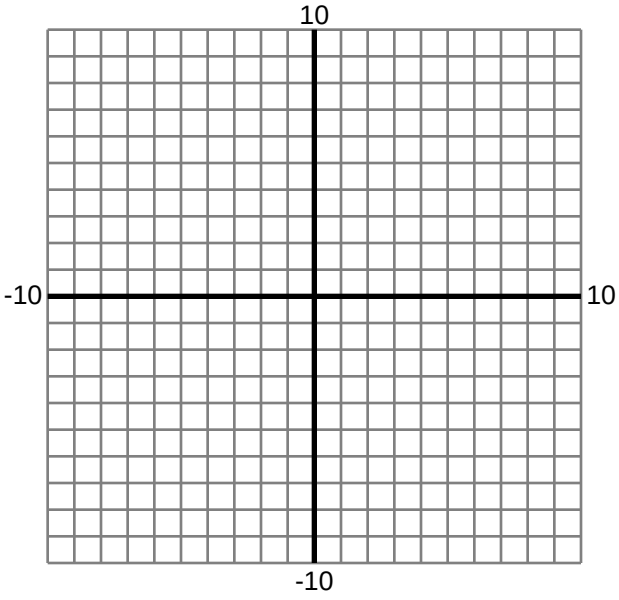
Intervals Where Concave Up:

Intervals Where Concave Down:

Relative Minima:

Relative Maxima

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




X-intercepts:

Y-intercept:

X-Values of Inflection Points:

X-Values of Critical Points:

Intervals Where Decreasing:

Intervals Where Increasing:

Intervals Where Concave Up:

Intervals Where Concave Down:

Relative Minima:

Relative Maxima

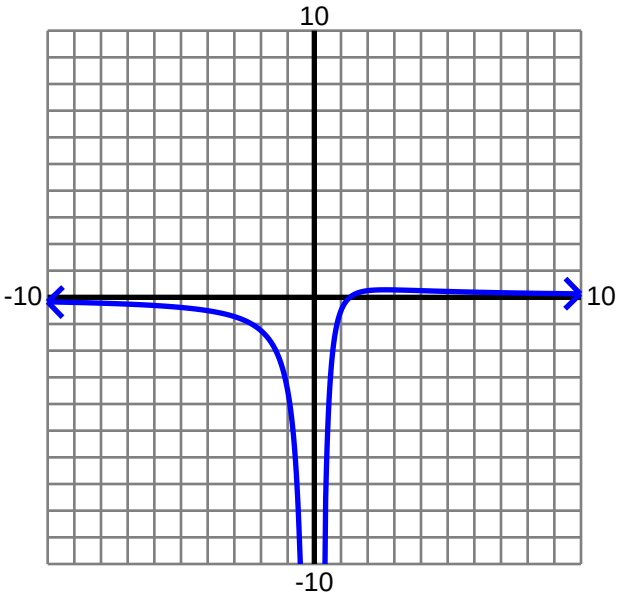
Name : _____ Score : _____

Teacher : _____ Date : _____

# Graphing Functions

**Fill in the properties of each function. Then, graph it.**

1) $f(x) = \frac{3x-4}{2x^2}$




X-intercepts: $\frac{4}{3}$

Y-intercept: None

X-Values of Critical Points: $\frac{8}{3}$

X-Values of Inflection Points: 4

Intervals Where Decreasing: $(-\infty, 0) \cup (\frac{8}{3}, \infty)$

Intervals Where Increasing: $(0, \frac{8}{3})$

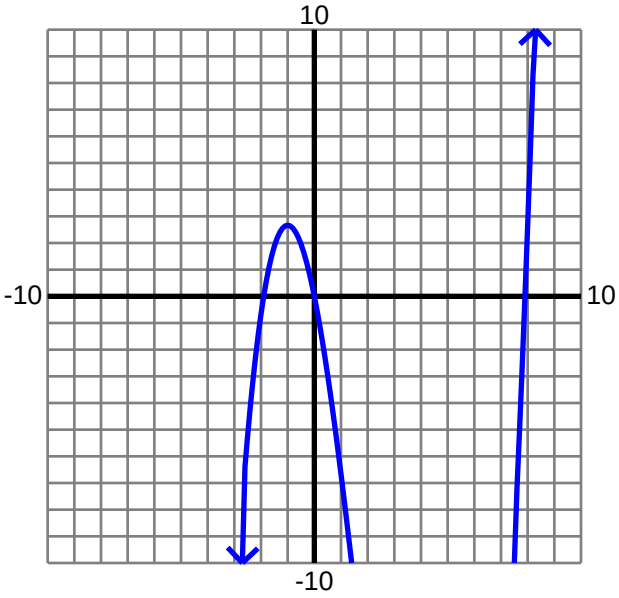
Intervals Where Concave Up: $(4, \infty)$

Intervals Where Concave Down: $(-\infty, 0) \cup (0, 4)$

Relative Minima: None

Relative Maxima: $\frac{8}{3}$

2) $f(x) = \frac{1}{3}x^3 - 2x^2 - 5x$




X-intercepts: $0, \frac{3}{2}(2 + \sqrt{\frac{32}{3}}), \frac{3}{2}(2 - \sqrt{\frac{32}{3}})$

Y-intercept: 0

X-Values of Critical Points: -1,5

X-Values of Inflection Points: 2

Intervals Where Decreasing: (-1, 5)

Intervals Where Increasing: $(-\infty, -1) \cup (5, \infty)$

Intervals Where Concave Up: $(2, \infty)$

Intervals Where Concave Down: $(-\infty, 2)$

Relative Minima: 5

Relative Maxima: -1

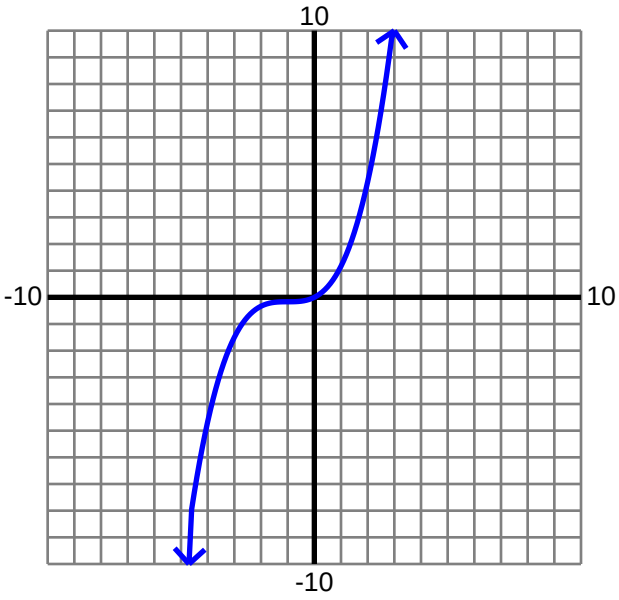
Name : _____ Score : _____

Teacher : _____ Date : _____

# Graphing Functions

**Fill in the properties of each function. Then, graph it.**

3) $f(x) = \frac{1}{6}x^3 + \frac{1}{2}x^2 + \frac{1}{2}x$




X-intercepts: 0

Y-intercept: 0

X-Values of Critical Points: -1,-1

X-Values of Inflection Points: -1

Intervals Where Decreasing: Never

Intervals Where Increasing: Always

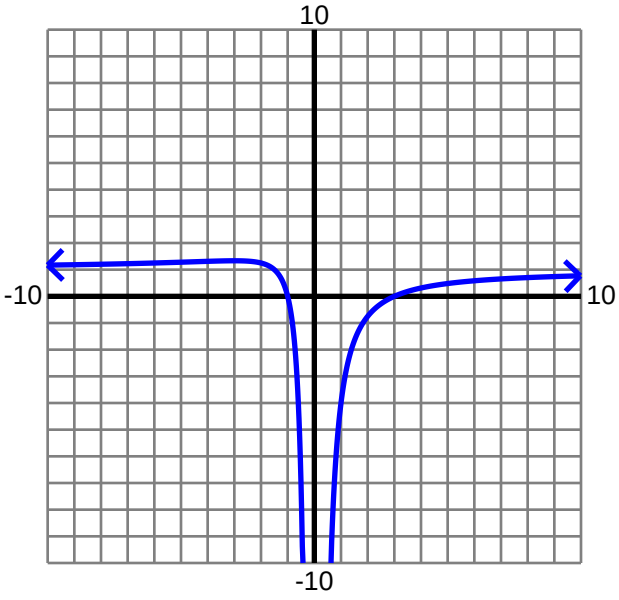
Intervals Where Concave Up: (-1, ∞)

Intervals Where Concave Down: (-∞, -1)

Relative Minima: None

Relative Maxima: None

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




X-intercepts: -1, 3

Y-intercept: None

X-Values of Critical Points: -3

X-Values of Inflection Points: $\frac{-9}{2}$

Intervals Where Decreasing: (-3, 0)

Intervals Where Increasing: $(-\infty, -3) \cup (0, \infty)$

Intervals Where Concave Up: $(-\infty, \frac{-9}{2}) \cup (0, \infty)$

Intervals Where Concave Down: $(\frac{-9}{2}, 0)$

Relative Minima: None

Relative Maxima: -3