

Fourth Quiz for Math 30

Name: _____

1. Consider the rational function:

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

- (a) Determine the x and y intercepts of the graph of $y = f(x)$.

- (b) Determine the vertical and horizontal asymptotes of f , if they exist.

- (c) Determine how the sign of f changes.

- (d) Draw a rough sketch of the graph of $y = f(x)$.

2. Consider the rational function:

$$g(x) = \frac{x^2 - 4}{x^2 - 2x}$$

(a) Determine the x and y intercepts of the graph of $y = g(x)$.

(b) Determine the vertical and horizontal asymptotes of g , if they exist.

(c) Determine how the sign of g changes.

(d) Draw a rough sketch of the graph of $y = g(x)$.