

PreCalculus '13-14

Name: _____

Dr. Quattrin

Polynomials Test-- CALCULATOR ALLOWED

Round to 3 decimal places.

Score _____

Show all work.

1. Find the zeros and VAs of $y = \frac{2x^3 + x^2 - 8x - 4}{2x^3 + x^2 + 8x + 4}$. Show the supporting algebraic work.

2. Find the critical values and extreme values of $y = \frac{2x^3 + x^2 - 8x - 4}{2x^3 + x^2 + 8x + 4}$. Show the derivative and algebra to support the critical values.

3. $\frac{d}{dx} \left[\frac{2x^2 - x - 3}{3 + 2x - x^2} \right]$

4. Find the zeros, VAs, and POEs of $y = \frac{6x^2 + 18x}{x^3 + 3x^2 - 4x - 12}$. Show the supporting algebraic work.

5. Find the critical values and extreme values of $y = \frac{6x^2 + 18x}{x^3 + 3x^2 - 4x - 12}$. Show the derivative and algebra to support the critical values.

PreCalculus '13-14

Name: _____

Dr. Quattrin

Polynomials Test—CALCULATOR NOT ALLOWED

Show all work.

Score _____

6. Write an equation of a rational function that has x -intercepts at $(-3, 0)$, VA at $x = 5$, a POE at $x = -2$, and a HA at $y = \frac{6}{5}$.

7. Find the traits and **sketch** $y = \frac{6x^2 + 18x}{x^3 + 3x^2 - 4x - 12}$.

Domain:

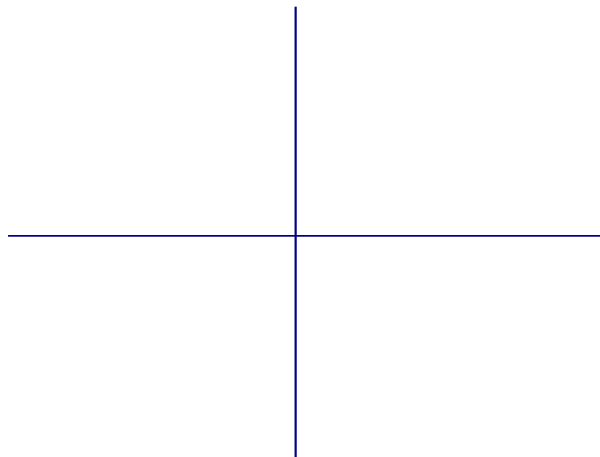
Range:

Y – Int:

End Behavior:

Zeros:

Extreme Points:



8. Find the traits and **sketch** of $y = \frac{2x^3 + x^2 - 8x - 4}{2x^3 + x^2 + 8x + 4}$.

Domain:

Y – Int:

Zeros:

Range:

Vas:

End Behavior:

POEs:

Extreme Points:

