

Find the equation for the Horizontal Asymptote of each Rational Function. If the function does not have a Horizontal Asymptote state No HA.

1. $y = \frac{x^3 + 4x^2 - 9}{2x^2 + 6}$

HA:

2. $y = \frac{15x^2 - 2x + 10}{3x^2 + 5}$

HA:

3. $y = \frac{20x + 13}{4x^2 + 9}$

HA:

4. $y = \frac{3x(4x - 5)(2x + 7)}{(x^2 + 7)(2x + 9)}$

HA:

State the x and y intercepts of each Rational Function, if any.

5. $y = \frac{x^3 + 2x^2 - 9x - 18}{5x^2 + 6}$

x-int:

y-int:

6. $y = \frac{2x^2 - 9x - 5}{3x^3 + 4x - 10}$

x-int:

y-int:

7. $y = \frac{4x^2 + 9}{2x^2 + 3x}$

x-int:

y-int: