

Bellwork Alg 2 4th & 6th hrs Thursday, February 21, 2019

Y-intercepts are found by replacing x with zero and simplifying.

Find all the equation of the Horizontal Asymptotes and y-intercepts, if any.

1. $y = \frac{21x^2 - 12x}{3x^3 - 4x + 5}$

EQ of HA:

y-int:

2. $y = \frac{9x^2 + x - 28}{18x^2 + 7x}$

EQ of HA:

y-int:

3. $y = \frac{x^4 + 6x^2 + 5}{6x^2 - 3x + 8}$

EQ of HA:

y-int:

Y-intercepts are found by replacing x with zero and simplifying.

Find all the equation of the Horizontal Asymptotes and y-intercepts, if any.

ANSWERS

$$1. \quad y = \frac{21x^2 - 12x}{3x^2 - 4x + 5}$$

EQ of HA:

$$y = 0$$

y-int:

$$y = \frac{0-0}{0-0+5} = \frac{0}{5} = 0$$

$$y = 0$$

$$2. \quad y = \frac{9x^2 + x - 28}{18x^2 + 7x}$$

EQ of HA:

$$y = \frac{9}{18} = \frac{1}{2}$$

$$y = \frac{1}{2}$$

y-int:

$$y = \frac{0+0-28}{0+0} = \frac{-28}{0} = \text{undefined}$$

NO y-int

$$3. \quad y = \frac{x^4 + 6x^2 + 5}{6x^2 - 3x + 8}$$

EQ of HA:

NONE

y-int:

$$y = \frac{0+0+5}{0-3+8} = \frac{5}{5}$$

$$y = \frac{5}{5}$$