

# Evaluating Rational Expressions Answer Key

*So, Do We Like Rational Expressions? Yay or Nay?*

Evaluate the following rational expressions.

1.  $\frac{x^4-6x^3+2x^2+9}{x^2+3x-9}$  at  $x = 0$

-1

6.  $\frac{x^3-4x^2+2x+3}{x^2+4x}$  at  $x = 0$

Undefined

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

$-\frac{11}{13}$

7.  $\frac{x^3-4x^2+2x+3}{x^2+4x}$  at  $x = 1$

$\frac{2}{5}$

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

$-\frac{6}{5}$

8.  $\frac{x^3-4x^2+2x+3}{x^2+4x}$  at  $x = 2$

$-\frac{1}{12}$

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

-15

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

$\frac{4}{3}$

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

$\frac{258}{9}$

10.  $\frac{x^3-4x^2+2x+3}{x^2+4x}$  at  $x = 4$

Undefined

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