

Advanced Algebra & Trigonometry

Algebraic Functions: Graphing Rational Functions – HW #1

For each rational function, state the vertical and horizontal asymptotes and graph the function.

1. $y = \frac{2}{x+5}$

2. $y = -\frac{1}{3x-2}$

3. $y = \frac{5}{x^2}$

4. $y = \frac{-3}{x^2-4}$

5. $y = \frac{2x}{5-x}$

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

7. $y = \frac{-x}{x^2+x-6}$

8. $y = \frac{2x^2}{2x^2-8x}$