

Asymptotes and Holes of Rational Functions

	Holes:	Vertical Asymptotes:	Domain:	Horizontal Asymptotes:
1. $f(x) = \frac{5(x-3)(x+3)}{6(x+3)(x-6)}$				
2. $f(x) = \frac{6(x-1)(x+9)(x-8)(x+7)}{(x+9)(x+7)(x-3)}$				
3. $f(x) = \frac{7x(2x-1)(3x+4)}{6(2x-1)(2x+5)(3x-4)}$				
4. $f(x) = \frac{x^3+8}{3x^4-4x^3-12x^2+16x}$				
5. $f(x) = \frac{-4x+16}{x-4}$				
6. $f(x) = \frac{2x^3+2x^2-24x}{7x^2+28x-147}$				
7. $f(x) = \frac{x+2}{2x+6}$				
8. $f(x) = \frac{x-4}{x^2-4}$				
9. $f(x) = \frac{x^3-9x}{3x^2-6x-9}$				
10. $f(x) = \frac{3x-12}{5x^2-10x-40}$				
11. $f(x) = \frac{x^3+2x^2-3x}{x^3+x^2-25x-25}$				
12. $f(x) = \frac{x^4-256}{x^2+7x+12}$				

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