

# Asymptotes Worksheet

Find the vertical asymptotes for function in problems 1-5. Find the horizontal/slant/curvilinear asymptotes of functions in problems 6 - 10.

1.  $f(x) = \frac{1}{x+17}$

6.  $f(x) = \frac{3x^2-9}{x-3}$

2.  $f(x) = \frac{x^2-9}{x^2+2x-3}$

7.  $f(x) = \frac{2x^3}{x^2+1}$

3.  $f(x) = \frac{2x+1}{x^2-4}$

8.  $f(x) = \frac{2x^2+1}{x^2+1}$

4.  $f(x) = \frac{4x^2+4x+1}{6x^2+x-1}$

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

5.  $f(x) = \frac{5x-1}{25x^2+1}$

10.  $f(x) = \frac{5x^6+4x^4}{2x^3-1}$

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