

## Domain of Function A

Determine the domain for each of the following.

1.  $f(x) = x - 5$

$(-\infty, \infty)$

2.  $f(x) = 5x^4 - 8$

$(-\infty, \infty)$

3.  $f(x) = \frac{3x-5}{x}$

$(-\infty, 0) \cup (0, \infty)$

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

$(-\infty, 5) \cup (5, \infty)$

5.  $f(x) = \frac{5x+7}{x^2-9}$

$(-\infty, -3) \cup (-3, 3) \cup (3, \infty)$

6.  $f(x) = \frac{\sqrt{5}}{x^2-3x}$

$(-\infty, 0) \cup (0, 3) \cup (3, \infty)$

7.  $f(x) = \frac{2x}{x^2-3x-10}$

$(-\infty, -2) \cup (-2, 5) \cup (5, \infty)$

8.  $f(x) = \frac{3x^2+5x}{x^2+5x+6}$

$(-\infty, -3) \cup (-3, -2) \cup (-2, \infty)$

9.  $f(x) = \frac{x^2-16}{x^2-8x-20}$

$(-\infty, -2) \cup (-2, 10) \cup (10, \infty)$

10.  $f(x) = \frac{-2x^3}{3x^2+13x-10}$

$(-\infty, -5) \cup (-5, \frac{2}{3}) \cup (\frac{2}{3}, \infty)$

11.  $f(x) = \sqrt{x-4}$

$[4, \infty)$

12.  $f(x) = \sqrt{5x+2}$

$[-\frac{2}{5}, \infty)$

13.  $f(x) = \frac{\sqrt{2x-3}}{5}$

$[\frac{3}{2}, \infty)$

14.  $f(x) = \sqrt{3-7x}$

$(-\infty, \frac{3}{7}]$

15.  $f(x) = \frac{\sqrt{2x+5}}{x^2-16}$

$[-\frac{5}{2}, 4) \cup (4, \infty)$

16.  $f(x) = \frac{\sqrt{3x+10}}{2x^2-3x-5}$

$[-\frac{10}{3}, -1) \cup (-1, \frac{5}{2}) \cup (\frac{5}{2}, \infty)$