

Domain of Function B

Determine the domain for each of the following.

1. $f(x) = -5x + 4$
 $(-\infty, \infty)$

2. $f(x) = x^2 + 2$
 $(-\infty, \infty)$

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

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

5. $f(x) = \frac{x}{x^2 - 16}$
 $(-\infty, -4) \cup (-4, 4) \cup (4, \infty)$

6. $f(x) = \frac{2x}{x^2 - 4}$
 $(-\infty, -2) \cup (-2, 2) \cup (2, \infty)$

7. $f(x) = \frac{x-2}{x^2+x}$
 $(-\infty, 0) \cup (0, \infty)$

8. $f(x) = \frac{x+4}{x^2-4x}$ $x \neq 0$ $x \neq 4$
 $(-\infty, -2) \cup (-2, 0) \cup (0, 2) \cup (2, \infty)$

9. $f(x) = \sqrt{3x-12}$
 $[4, \infty)$

10. $f(x) = \sqrt{1-x}$
 $(-\infty, 1]$

11. $f(x) = \frac{4}{\sqrt{x-9}}$
 $[9, \infty)$

12. $f(x) = \frac{x}{\sqrt{x-4}}$ $x-4 > 0$
 $x > 4$
 $(4, \infty)$

13. $f(x) = \sqrt{-x-2}$ $-x-2 \geq 0$
 $x \leq -2$
 $(-\infty, -2]$

14. $f(x) = \sqrt{\frac{2}{x-1}}$
 $(1, \infty)$

15. $f(x) = \frac{\sqrt{3x+1}}{2x^2-5x-12}$
 $(-\frac{1}{3}, 4) \cup (4, \infty)$

16. $f(x) = \frac{\sqrt{3-2x}}{x^2+5x+6}$ $x \leq \frac{3}{2}$
 $x \neq -2$ $x \neq -3$
 $(-\infty, -3) \cup (-3, -2) \cup (-2, \frac{3}{2}]$