Calculus

# Restricted Domain PRACTICE

**Find the intervals on which each function is continuous.**

1) $f(x) = \dfrac{x+2}{x^2-4}$

2) $f(x) = -x^3 + 2x^2 + 1$

3) $f(x) = -x^3 + 3x^2 - 5$

4) $f(x) = -x^2 + 2x - 2$

5) $f(x) = -\dfrac{x-1}{x^2+x-2}$

6) $f(x) = x^3 - 3x^2 + 2$

7) $f(x) = x^2 - 8x + 16$

8) $f(x) = \dfrac{x-6}{x^2-2x-3}$

9) $f(x) = \dfrac{x}{x^2-4x+4}$

10) $f(x) = \dfrac{x+4}{x^2-4}$

11) $f(x) = \dfrac{x+3}{x^2+4x+3}$

12) $f(x) = \dfrac{x+3}{x^2-x-6}$

# Restricted Domain PRACTICE

**Find the intervals on which each function is continuous.**

1) $f(x) = \dfrac{x+2}{x^2-4}$

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

2) $f(x) = -x^3 + 2x^2 + 1$

$(-\infty, \infty)$

3) $f(x) = -x^3 + 3x^2 - 5$

$(-\infty, \infty)$

4) $f(x) = -x^2 + 2x - 2$

$(-\infty, \infty)$

5) $f(x) = -\dfrac{x-1}{x^2+x-2}$

$(-\infty, -2), (-2, 1), (1, \infty)$

6) $f(x) = x^3 - 3x^2 + 2$

$(-\infty, \infty)$

7) $f(x) = x^2 - 8x + 16$

$(-\infty, \infty)$

8) $f(x) = \dfrac{x-6}{x^2-2x-3}$

$(-\infty, -1), (-1, 3), (3, \infty)$

9) $f(x) = \dfrac{x}{x^2-4x+4}$

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

10) $f(x) = \dfrac{x+4}{x^2-4}$

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

11) $f(x) = \dfrac{x+3}{x^2+4x+3}$

$(-\infty, -3), (-3, -1), (-1, \infty)$

12) $f(x) = \dfrac{x+3}{x^2-x-6}$

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