

Intermediate Algebra Skill

Finding the Domain: Given the Equation; Rational Function and Nonlinear Denominator

Find the Domain.

$$1) F(x) = \frac{x}{x^2 - 36}$$

$$2) G(x) = \frac{x-5}{x^2+5x+6}$$

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

$$4) g(x) = \frac{2x}{3x^2+5x+2}$$

$$5) H(x) = \frac{2x+5}{x^2-x}$$

$$6) h(x) = \frac{1-x}{2x-x^2}$$

$$7) J(x) = \frac{2x^2+7x-2}{x^2-25}$$

$$8) j(x) = \frac{5x^2+1}{x^2+5}$$

$$9) K(x) = \frac{x-1}{x^3-x}$$

$$10) k(x) = \frac{7x^2-x+2}{x^2+4}$$

Answers to Finding the Domain: Given the Equation; Rational Function and Nonlinear Denominator

1) $\mathbb{R} \setminus \{-6, 6\}$

2) $\mathbb{R} \setminus \{-3, -2\}$

3) $\mathbb{R} \setminus \{-2, 2\}$

4) $\mathbb{R} \setminus \{-2/3, -1\}$

5) $\mathbb{R} \setminus \{0, 1\}$

6) $\mathbb{R} \setminus \{0, 2\}$

7) $\mathbb{R} \setminus \{-5, 5\}$

8) \mathbb{R}

9) $\mathbb{R} \setminus \{-1, 0, 1\}$

10) \mathbb{R}