



Function Composition to Domain - Integer over Root of Quadratic (Real Roots) to Domain Definition

1

$$f(x) = \frac{3}{\sqrt{x}}$$

Which set describes the domain of this function composition?

$$g(x) = 1x^2 - 0x - 9$$

A
 $\{X \in \mathbb{R} | -3 < X < 3 \text{ or } -3 < X < 3\}$

$f(g(x)) \rightarrow$ Domain?

B
 $\{X \in \mathbb{R} | X < -3 \text{ or } 3 < X\}$

2

$$f(x) = \frac{5}{\sqrt{x}}$$

Which set describes the domain of this function composition?

$$g(x) = 2x^2 - 10x - 0$$

A
 $\{X \in \mathbb{R} | X < 0 \text{ or } -5 < X < 5\}$

$f(g(x)) \rightarrow$ Domain?

B
 $\{X \in \mathbb{R} | X < 0 \text{ or } 5 < X\}$

3

$$f(x) = \frac{3}{\sqrt{x}}$$

Which set describes the domain of this function composition?

$$g(x) = 1x^2 - 5x - 14$$

A
 $\{X \in \mathbb{R} | X < -2 \text{ or } 7 < X\}$

$f(g(x)) \rightarrow$ Domain?

B
 $\{X \in \mathbb{R} | X < -2 \text{ or } -7 < X < 7\}$

4

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

Which set describes the domain of this function composition?

$$g(x) = 2x^2 - 6x - 20$$

A
 $\{X \in \mathbb{R} | X < -2 \text{ or } 5 < X\}$

$f(g(x)) \rightarrow$ Domain?

B
 $\{X \in \mathbb{R} | -2 < X < 2 \text{ or } -5 < X < 5\}$

5

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

Which set describes the domain of this function composition?

$$g(x) = -3x^2 - 9x - 6$$

A
 $\{X \in \mathbb{R} | -2 < X < -1\}$

$f(g(x)) \rightarrow$ Domain?

B
 $\{X \in \mathbb{R} | -2 \leq X < -1\}$

6

$$f(x) = \frac{2}{\sqrt{x}}$$

Which set describes the domain of this function composition?

$$g(x) = -2x^2 - 10x + 12$$

A
 $\{X \in \mathbb{R} | -6 < X < 1\}$

$f(g(x)) \rightarrow$ Domain?

B
 $\{X \in \mathbb{R} | -6 \leq X \leq 1\}$

7

$$f(x) = \frac{2}{\sqrt{x}}$$

Which set describes the domain of this function composition?

$$g(x) = 2x^2 - 6x - 0$$

A
 $\{X \in \mathbb{R} | X < 0 \text{ or } 3 < X\}$

$f(g(x)) \rightarrow$ Domain?

B
 $\{X \in \mathbb{R} | X < 0 \text{ or } 0 \leq X \leq 3\}$

8

$$f(x) = \frac{-1}{\sqrt{x}}$$

Which set describes the domain of this function composition?

$$g(x) = 1x^2 + 1x - 12$$

A
 $\{X \in \mathbb{R} | X < -4 \text{ or } 3 < X\}$

$f(g(x)) \rightarrow$ Domain?

B
 $\{X \in \mathbb{R} | X < -4 \text{ or } -3 < X < 3\}$