Exercises - Solving Rational Equations

1

$$\frac{x}{x-1}=\frac{x-2}{x+1}$$

What is the solution set of the equation above?

A) -2

B) $-\frac{1}{2}$

C) $\frac{1}{2}$

D) 2

2

$$\frac{x}{x-3}-2=\frac{4}{x-2}$$

What is the solution set of the equation above?

A) $\{0\}$

B) $\{2\}$

C) $\{0, 2\}$

D) $\{0, 4\}$

3

$$\frac{1}{x}-\frac{2}{x-2}=\frac{-4}{x^2-2x}$$

What is the solution set of the equation above?

A) -2

B) 0

C) 2

D) There is no solution to the equation.

4

$$\frac{3}{x^2-3x}+\frac{1}{3-x}=2$$

What is the solution set of the equation above?

A) $\{-\frac{1}{2}\}$

B) $\{3\}$

C) $\{-\frac{1}{2}, 3\}$

D) $\{-\frac{1}{2}, -3\}$

5

If $f(x)=\frac{1}{(x-a)^2-4(x-a)+4}$ is undefined when $x=6$, what is the value of a?

6

$$g(x)=\frac{1}{(x+3)^2-24(x+3)+144}$$

For what value of x is function g above undefined?