Mathematics: Lesson06

Assessment

Find the domain

$$\frac{x^2-16}{x^2-4x-12}$$

A. $\{x|x \neq -6,2\}$

B. $\{x|x \neq -4,4\}$

C. $\{x|x \neq -4,3\}$

D. $\{x|x \neq -2,6\}$

Choose the correct domain for this rational expression

$$\frac{x^2+6x+8}{x^2-5x-14}$$

A. $\{x|x \neq -7, 2\}$

B. $\{x|x \neq -2, -4\}$

C. $\{x|x \neq 7\}$

D. $\{x|x \neq -2, 7\}$

Choose the correct domain for this rational expression

$$\frac{20x + 90}{70}$$

A. $\{x | x \neq -70\}$

B. $\{x | x \neq 20\}$

C. $\{x | x \neq 90\}$

D. (All real numbers)

Simplify this rational expression to its lowest terms

$$\frac{1-w}{w^2-1}$$

A. $-(w+1)$

B. $(w+1)$

C. $-\dfrac{1}{w+1}$

D. $\dfrac{1}{w+1}$

Simplify this rational expression to its lowest terms

$$\frac{9x^4 - 27x^6}{3x^3}$$

A. $3x(1 - 3x)$

B. $3x(1 - 9x^5)$

C. $3x(1 - 3x^2)$

D. $9x^3(1 - x)$

Simplify this rational expression to its lowest terms

$$\frac{x - 3}{x^2 - 5x + 6}$$

A. $\dfrac{3}{x-5}$

B. $\dfrac{1}{x-2}$

C. $x - 2$

D. $\dfrac{x}{x-2}$

Simplify this rational expression to its lowest terms

$$\frac{x^2 - 2x - 15}{x^2 + 3x}$$

A. -5

B. $\frac{x-5}{x}$

C. $\frac{-2x-5}{x}$

D. $\frac{-2x-15}{3x}$

Simplify this rational expression

$$\frac{6x^4 - 15x^3 + 12x^2}{3x^3}$$

A. $6x - 5$

B. $2x - 5 + \frac{4}{x}$

C. $x^2 - 5$

D. $2x - 15 + \frac{4}{x}$

Simplify this rational expression to its lowest terms

$$\frac{20x^{10} - 10x^7}{5x^4}$$

A. $4x^6 - 2x^3$

B. $2x^{13}$

C. $2x^{10} - 2x^3$

D. $4x^6 - 10x^7$

Simplify this rational expression to its lowest terms

$$\frac{2x^2 - 12x}{x - 6}$$

A. 0

B. $2x$

C. $4x$

D. $2x + 2$