Mathematics: Lesson07

Assessment

Question 1

Indicate if the following is True or False

The least common denominator (LCD) of $\frac{1}{6a^2}$ and $\frac{1}{4ab^3}$ is $2ab$

A. True

B. False

Question 2

Indicate if the following is True or False

The least common denominator (LCD) of $\frac{1}{x-2}$ and $\frac{1}{x+2}$ is $x^2 - 4$

A. True

B. False

Question 3

Determine the LCD of these rational two expressions

$$\frac{1}{x^2 + 7x + 6} \quad \frac{1}{x^2 + 4x + 3}$$

A. $(x+6)(x-3)(x+1)$

B. $(x+1)(x+3)(x-6)$

C. $(x+6)(x+1)(x+3)$

D. $(x-6)(x-1)(x-3)$

Question 4

Perform this operation and express the answer in the simplest form

$$\frac{-5x}{x-9} - \frac{-8}{x-9}$$

A. $\frac{-5x+8}{x-9}$

B. $\frac{-5x-8}{x-9}$

C. $\frac{x-9}{-5x}$

D. $\frac{x+8}{x}$

Question 5

Perform this operation and express the answer in the simplest form

$$\frac{3y+2}{4y-5} - \frac{y-1}{5-4y}$$

A. $\frac{y+1}{x-5}$

B. $\frac{2y+3}{4y-5}$

C. $\frac{4y+1}{4y+5}$

D. $\frac{2y+1}{4y-5}$

Question 6

Perform this operation and express the answer in the simplest form

$$\frac{y^2 + 16y - 14}{(y+2)(y-4)}$$

A. $\frac{y+8}{-6}$

B. $\frac{y^2+16y-17}{(y+2)(y-4)}$

C. $\frac{y+8}{(y+2)(y-4)}$

Question 7

Perform this operation and express the answer in the simplest form

$$\frac{8a+6}{4ab} - \frac{4a+2b}{4ab}$$

A. $\frac{4a-2b+6}{4ab}$

B. $\frac{2a-b+3}{2ab}$

C. $\frac{2a+3+b}{2ab}$

D. $\frac{4a+6+2b}{4ab}$

x

Question 8

Perform this operation and express the answer in the simplest form

$$\frac{2x^2-48}{x^2-16}-\frac{x+6}{x+4}$$

A. $\frac{x-6}{x-4}$

B. $x^2+2x-72$

C. $\frac{x+6}{x-4}$

D. $\frac{x-6}{x+4}$

Question 9

Perform this operation and express the answer in the simplest form

$$2x + \frac{x}{y}$$

A. $\frac{x(2y+1)}{y}$

B. $\frac{3x}{y}$

C. $\frac{3x}{y}$

D. $\frac{2xy+2x^2}{y}$

Question 10

Perform this operation and express the answer in the simplest form

$$\frac{8}{3(x+8)}+\frac{4}{3(x+8)}$$

A. $\frac{4}{(x+8)}$

B. $\frac{2}{(x+8)}$

C. $\frac{12}{(x+8)}$

D. $\frac{4}{(x+8)^2}$