

Multiplying Rational Expressions

18 Questions

NAME: _____

CLASS: _____

DATE: _____

1.

$$\frac{(n-1)(n-5)}{2(n+3)} \cdot \frac{2(n+3)}{n-5}$$

☐ a) $n-1$

☐ b) $\frac{2(n-1)}{2}$

☐ c) $2(n-1)$

☐ d) 1

2.

$$\frac{(x-5)(x-8)}{x+1} \cdot \frac{x+1}{(x+5)(x-8)}$$

☐ a) 1

☐ b) $\frac{(x-8)}{(x+5)}$

☐ c) $\frac{(x-5)}{(x+5)}$

☐ d) $\frac{(x+1)}{(x+5)}$

3.

$$\frac{10x}{x-8} \cdot \frac{6x^2-48x}{6x}$$

☐ a) $\frac{5x}{3}$

☐ b) $\frac{10x}{x-8}$

☐ c) $10x$

☐ d) $\frac{6x(x-8)}{6x}$

4.

$$\frac{x^2-x-6}{x-3} \cdot \frac{x+9}{x+2}$$

☐ a) $x+9$

☐ b) $\frac{(x-3)}{(x+2)}$

☐ c) $\frac{(x+9)}{(x+2)}$

☐ d) $x-3$

Multiply:

$$\frac{6p-6}{p} \cdot \frac{2p^2}{9p-9}$$

A) $\frac{4p}{3}$

B) $\frac{54p^2 + 108p + 54}{2p^3}$

C) $\frac{3}{4p}$

D) $\frac{12p^3 - 12p^2}{9p^2 - 9p}$

Multiply:

$$\frac{k^2 + 12k + 32}{k^2 + 13k + 40} \cdot \frac{k^2 + 5k}{k^2 + 6k + 8}$$

A) $\frac{k^2 + 5k}{k + 2}$

B) $\frac{k}{k^2 + 13k + 40}$

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

D) $\frac{k}{k + 2}$

For all values of x for which the expression is defined, $\frac{2x + x^2}{x^2 + 5x + 6}$ is equivalent to

A. $\frac{1}{x+3}$ B. $\frac{x}{x+3}$ C. $\frac{1}{x+2}$ D. $\frac{x}{x+2}$

What is the product of $\frac{4x}{x-1}$ and $\frac{x^2-1}{3x+3}$ expressed in simplest form?

A. $\frac{4x}{3}$

B. $\frac{4x^2}{3}$

C. $\frac{4x^2}{3(x+1)}$

D. $\frac{4(x+1)}{3}$

$$\frac{x^2 - 8x - 20}{x - 10} \cdot \frac{3x}{x + 2}$$

- A) $3x$ B) $\frac{x + 9}{(x - 6)(x + 10)}$
- C) $\frac{5}{4}$ D) $\frac{5}{3}$

$$\frac{20n^2}{4n + 8} \cdot (-6n - 12)$$

$$\frac{\boxed{}}{\boxed{}} \cdot \boxed{}$$

$$\begin{array}{c} \boxed{} \cdot \boxed{} \\ \hline \boxed{} \\ \hline \boxed{} \end{array}$$

$$20n^2$$

$$\frac{20n^2}{2}$$

$$2(\cancel{2n} + 4)$$

$$-60n^2$$

$$-30n^2$$

$$-3(\cancel{2n} + 4)$$

$$\frac{-3}{1}$$

$$2$$