# Multiplying And Dividing Rational Expressions

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

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

$2(x-1)$

2) $\frac{5x-5}{x^2-3x} \div \frac{x-1}{x-3}$

$\frac{5x-5}{x^2-3x} \cdot \frac{x-3}{x-1}$

$\frac{5(x-1)}{x(x-3)} \cdot \frac{x-3}{x-1} = \frac{5}{x}$

3) $\frac{x^2 - x}{x+3} \cdot \frac{x^2 + 5x + 6}{x^2 - 1}$

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

$\frac{x(x+2)}{x+1}$

4) $\frac{x^2 - 25}{x^2 - 3x} \div \frac{x-5}{x-3}$

$\frac{(x+5)(x-5)}{x(x-3)} \cdot \frac{x-3}{x-5}$

$\frac{x+5}{x}$ not $\frac{\frac{x+5}{x}}{} = 5$

Correct!

NO!