

Algebra 2: Homework 19

Perform the indicated operation and express in simplest form:

1. $\frac{6x}{x-3} \div 2x$

2. $\frac{3}{x-3} + \frac{x}{3-x}$

3. $\frac{x^3 - 36x}{x^2 + 7x + 6} \div \frac{6x^2 - x^3}{x^2 + x}$

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

5. $\frac{x^2 - 12x + 27}{x^2 - 81} \cdot \frac{x+9}{3-x}$

6. $\frac{x-6}{x^2-9} + \frac{5}{x-3}$

7. $\frac{4}{x^2-8x-9} + \frac{5x}{x-9} - \frac{x}{x+1}$