

Questions

Simplify all expressions by factoring, finding common denominators, or writing as a rational expression.

1. $\frac{x^3 - 3x^2 - 40x}{x^2 + 10x + 25}$.

2. $\frac{3x^2 - 10x - 8}{16x^2 + 40x + 25} \cdot \frac{4x + 5}{x^2 - 8x + 16}$.

3. $\frac{x + 6}{x - 8} \div \frac{x + 5}{x^2 - 6x - 16}$.

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

5. $\frac{5}{18x^2y^5} + \frac{7}{30x^3y^3}$.