
Math B Week 5 Homework: Simplifying Rational Expressions
Due Monday 13 March 2006
Mr. Quinn

Factor these expressions completely.

$$2x^2 + 6x$$

$$35x^2 - 10x^3$$

$$9x^8 + 11x^7$$

$$4x^3 - 4x$$

$$2x^9 + 16x^8 + 24x^7$$

$$3x^7 + 27x^6 + 60x^5$$

$$6x^7 - 42x^6 + 72x^5$$

$$45x^3 - 5x^5$$

$$15x^4 + 90x^3 - 240x^2$$

$$2x^{10} - 12x^9 - 14x^8$$

$$7x^{13} - 21x^8 + 35x^3$$

$$7x^4 - 847x^2$$

Simplify these rational expressions.

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

$$\frac{7x^2 - 35}{x - 5}$$

$$\frac{4 - x}{3x^3 - 12x^2}$$

$$\frac{3x^4 - 3x^3 - 6x^2}{x^2 - 2x}$$

$$\frac{7x^6 + 7x^5}{x^2 + x}$$

$$\frac{5x^2 - 180}{15x^8 + 90x^7}$$

$$\frac{2x^6 + 2x^5}{x - 7} \times \frac{4x^2 - 28x}{x + 1}$$

$$\frac{2x + 12}{4x - 20} \times \frac{x - 5}{7x + 42}$$

$$\frac{9x^2 + 18x}{3x^3 + 24x^2 + 26x} \times \frac{x^2 - x - 2}{x + 1}$$

$$\frac{4x^5 - 100x^3}{x^3 + 5x^2} \div \frac{x^2 - 8x + 15}{x^2 - x - 6}$$

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