Algebraic Fractions –
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Simplify each **FULLY!**

(1) $\frac{10x^3}{5x^2}$

(2) $\frac{20x^5y^7}{4x^8y}$

(3) $\frac{3x+6}{4x^2+8x}$

(4) $\frac{x^2-10x}{x^5}$

(5) $\frac{x^2-4x}{10x-40}$

(6) $\frac{x^2+4x-12}{x^2-2x}$

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

(8) $\frac{x^2}{3x^5y} \times \frac{15y^8}{x^3}$

(9) $\frac{x^2-4x}{x^2} \times \frac{4x^3}{2x-8}$

(10) $\frac{x^2-10x+16}{4x-32} \times \frac{x-1}{x^2-2x}$

(11) $\frac{x^2+4x}{x^2} \times \frac{3x-3}{x^2-x}$

(12) $\frac{18x^2y^4}{xy} \div \frac{9x^3}{y^9}$

(13) $\frac{x^2-5x+6}{x^2+12x+20} \div \frac{x-3}{x^2+10x}$

(14) $\frac{x^3-x^2}{x^2-x-6} \times \frac{(x-3)(x+4)}{x^2-x}$

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

(16) $\frac{x^2-5x+4}{100x-400} \times \frac{x-5}{x^2-10x+25}$

You will need the difference of two squares to factor the next 4.

(17) $\frac{x^2-25}{x^2+5x} \times \frac{x^2-9}{2x+6}$

(18) $\frac{x^2-121}{x^2-1} \div \frac{x^2+11x}{x^2-x}$

(19) $\frac{25x^2-9}{10x-6} \times \frac{4x-8}{5x+3}$

(20) $\frac{A^2-B^2}{2A+2B}$