

5.	C	$C; \frac{x^2 + 5x - 14}{x^2 - 4x + 4} = \frac{(x+7)\cancel{(x-2)}}{\cancel{(x-2)}(x-2)} = \frac{x+7}{x-2}$
9.	$\frac{x-3}{x+5}$	$\frac{x^2 - 11x + 24}{x^2 - 3x - 40} = \frac{\cancel{(x-8)}(x-3)}{\cancel{(x-8)}(x+5)} = \frac{x-3}{x+5}$
13.	$\frac{x-6}{x+6}$	$\frac{x^2 - 36}{x^2 + 12x + 36} = \frac{\cancel{(x+6)}(x-6)}{\cancel{(x+6)}(x+6)} = \frac{x-6}{x+6}$
17.	$\frac{x^2 - 3}{x - 3}$	$\frac{x^3 - 5x^2 - 3x + 15}{x^2 - 8x + 15} = \frac{x^2(x-5) - 3(x-5)}{(x-5)(x-3)}$ $= \frac{\cancel{(x-5)}(x^2 - 3)}{\cancel{(x-5)}(x-3)} = \frac{x^2 - 3}{x - 3}$
21.	$\frac{2}{x}$	$P = 4(2x) = 8x$ $A = (2x)(2x) = 4x^2$ $\frac{P}{A} = \frac{8x}{4x^2} = \frac{\cancel{4} \cdot 2 \cdot \cancel{x}}{\cancel{4} \cdot x \cdot \cancel{x}} = \frac{2}{x}$
25.	$\frac{8x^4}{y^2}$	$\frac{48x^5y^3}{y^4} \cdot \frac{x^2y}{6x^3y^2} = \frac{48x^7y^4}{6x^3y^6} = \frac{8 \cdot \cancel{6} \cdot \cancel{x^3} \cdot x^4 \cdot \cancel{y^4}}{\cancel{6} \cdot \cancel{x^3} \cdot \cancel{y^4} \cdot y^2} = \frac{8x^4}{y^2}$
29.	$\frac{x+4}{2(x-5)}$	$\frac{x+5}{4x-16} \cdot \frac{2x^2-32}{x^2-25} = \frac{x+5}{4(x-4)} \cdot \frac{2(x^2-16)}{(x+5)(x-5)}$ $= \frac{\cancel{2}(x+5)(x+4)\cancel{(x-4)}}{\cancel{2}(x-4)\cancel{(x+5)}(x-5)} = \frac{x+4}{2(x-5)}$

33.	$\frac{4(x+5)(x+4)}{x}$	$\frac{4x^2 + 20x}{x^3 + 4x^2} \cdot (x^2 + 8x + 16) = \frac{4x^2 + 20x}{x^3 + 4x^2} \cdot \frac{x^2 + 8x + 16}{1}$ $= \frac{4\cancel{x}(x+5)(x+4)\cancel{(x+4)}}{\cancel{x} \cdot x\cancel{(x+4)}}$ $= \frac{4(x+5)(x+4)}{x}$
37.	$\frac{16x(x-4)}{x+4}$	$\frac{8x^2}{x+4} \div \frac{x}{2(x-4)} = \frac{8x^2}{x+4} \cdot \frac{2(x-4)}{x}$ $= \frac{16(x)\cancel{x}(x-4)}{\cancel{x}(x+4)}$ $= \frac{16x(x-4)}{x+4}$
41.	$\frac{5(x+1)}{x-1}$	$\frac{x^2 - x - 2}{x^2 + 4x - 5} \div \frac{x-2}{5x+25} = \frac{x^2 - x - 2}{x^2 + 4x - 5} \cdot \frac{5x+25}{x-2}$ $= \frac{(x-2)(x+1)}{(x+5)(x-1)} \cdot \frac{5(x+5)}{x-2}$ $= \frac{5\cancel{(x-2)}(x+1)\cancel{(x+5)}}{\cancel{(x+5)}(x-1)\cancel{(x-2)}}$ $= \frac{5(x+1)}{x-1}$