Simplify

$$\frac{4x-12}{8}$$

$$\frac{2\cdot 2\cdot x-2\cdot 2\cdot 3}{2\cdot 2\cdot 2}$$

FACTOR

$$\frac{2\cdot 2\,(x-3)}{2\cdot 2\cdot 2}$$

CANCEL OUT COMMON TERMS

$$\frac{(x-3)}{2}=\frac{1}{2}(x-3)$$

$$\frac{8x^2 - 16x}{5x - 10}$$

factor

$$= \frac{2 \cdot 2 \cdot 2 \cdot x \cdot x - 2 \cdot 2 \cdot 2 \cdot 2 \cdot x}{5 \cdot x - 2 \cdot 5}$$

gcf

$$= \frac{2 \cdot 2 \cdot 2 \cdot x \,(x - 2)}{5\,(x - 2)}$$

cancel

$$= \frac{8x}{5}$$

Multiply

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

-4, -4×1, $-4 + 1 = -3$

$$\frac{3x}{(x-4)(x+1)} \cdot \frac{3(x-4)}{3 \cdot 3 x \cdot x}$$

$$\frac{1}{(x+1)x} = \frac{1}{x(x+1)}$$

$$\frac{x^2-7x+5}{3x-15} \cdot \frac{4x^2-8x}{16x}$$

$$\frac{(x^2-7x+5)}{3x-3\cdot 5} \cdot \frac{2\cdot 2\cdot x\cdot x-2\cdot 2\cdot 2\cdot x}{2\cdot 2\cdot 2\cdot 2\cdot x}$$

$$\frac{(x^2-7x+5)}{3(x-5)} \cdot \frac{2\cdot 2\cdot x(x-2)}{2\cdot 2\cdot 2\cdot 2\cdot x}$$

$$\frac{(x^2-7x+5)(x-2)}{12(x-5)}$$

$$\frac{x^2-3x-10}{7x-35} \cdot \frac{49x^3}{2x^4}$$

$$\frac{(x-5)(x+2)}{7\cdot x-7\cdot 5} \cdot \frac{7\cdot 7\cdot x\cdot x\cdot x}{2\cdot x\cdot x\cdot x\cdot x}$$

$$\frac{(x-5)(x+2)}{7(x-5)} \cdot \frac{7\cdot 7\cdot x\cdot x\cdot x}{2\cdot x\cdot x\cdot x\cdot x}$$

$$\frac{(x+2)\,7}{2x}$$

$$\frac{7(x+2)}{2x}$$

$$\frac{5}{x} \div \frac{2}{x}$$

$$\frac{5}{\cancel{x}} \cdot \frac{\cancel{x}}{2}$$

$$\frac{5}{2}$$