

WARMUP

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1 MULTIPLY or DIVIDE

$$\frac{x-2}{x-1} \cdot \frac{x^2-7x-8}{x^2-10x+16}$$

~~$\frac{(x-2)(x-2)(x+4)}{(x-1)(x-2)(x-8)(x-2)}$~~

$$\frac{1}{(x-1)}$$

2

$$\frac{4x+24}{2x^2-12x} \div \frac{x^2-36}{2x}$$

$$\frac{4x+24}{2x^2-12x} \cdot \frac{2x}{x^2-36}$$

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

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

3 ADD or SUBTRACT

$$\frac{3x+4}{5x+12} + \frac{4x-3}{x+4}$$

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

$$\frac{3x+4}{3(x+4)} + \frac{12x-9}{3(x+4)}$$

$$\frac{15x-5}{3(x+4)} = \frac{5(3x-1)}{3(x+4)}$$

4

$$\frac{2x+3}{x^2-6x+8} - \frac{4x-1}{x^2+5x-14}$$

$$\frac{(x+7) \cdot 2x+3}{(x+7)(x-2)(x-4)} - \frac{4x-1 \cdot (x-4)}{(x-2)(x+7)(x-4)}$$

$$\frac{2x^2+17x+21}{(x+7)(x-2)(x-4)} - \frac{4x^2-17x+4}{(x+7)(x-2)(x-4)}$$

$$\frac{-2x^2+34x+17}{(x+7)(x-2)(x-4)}$$

### IN CLASS ASSIGNMENT

28.  $\frac{3x-12}{x+5} \cdot \frac{x+6}{2x-8}$

18.  $\frac{x-4}{5x} - \frac{12}{5(x-4)}$

30.  $\frac{x^2+3x-4}{x^2+4x+4} \cdot \frac{2x^2+4x}{x^2-4x+3}$

20.  $\frac{3}{x+4} - \frac{1}{x+6}$

38.  $\frac{x^2-6x-27}{2x^2+2x} \div \frac{x^2-14x+45}{x^2}$

22.  $\frac{x+4}{x^2-4} - \frac{15}{x-2}$

40.  $\frac{3x^2+13x+4}{x^2-4} \div \frac{4x+16}{x+2}$

24.  $\frac{x^2-5}{x^2+5x-14} - \frac{x+3}{x+7}$

