

$$\textcircled{1} \frac{15x-20}{2x-7} + \frac{15}{2x-7}$$

ADDING / SUBTRACTING RATIONAL EXPRESSIONS WITH A COMMON DENOMINATOR

1. ADD OR SUBTRACT THE TOP PARTS AND PUT INTO SINGLE FRACTION
2. FACTOR TOP, FACTOR BOTTOM
3. CANCEL IF POSSIBLE

$$\frac{15x-20+15}{2x-7}$$

GCF

$$\frac{15x-5}{2x-7}$$

$$\frac{5(3x-1)}{7(3x-1)}$$

$$\textcircled{\frac{5}{7}}$$

$$\textcircled{2} \frac{-70}{3x-10} + \frac{21x}{3x-10}$$

GCF

$$\frac{21x-70}{3x-10}$$

$$\frac{7(3x-10)}{3x-10}$$

$$\textcircled{7}$$

$$\textcircled{3} \frac{2x^2-5x}{2x-12} + \frac{3x^2-30x+30}{2x-12}$$

$$\frac{2x^2-5x+3x^2-30x+30}{2x-12}$$

GCF

$$\frac{5x^2-35x+30}{2x-12}$$
 GCF

PSD

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

$$\frac{5(x-1)(x-6)}{2(x-6)}$$

$$\textcircled{\frac{5(x-1)}{2}}$$

$$\textcircled{4} \frac{8x}{7x^2+25x+2} + \frac{1}{7x^2+25x+2}$$

$$\frac{8x+1}{7x^2+25x+2}$$

KEY*

$$\frac{8x+1}{(8x+1)(9x+2)}$$

$$\textcircled{\frac{1}{9x+2}}$$

$$\textcircled{5} \frac{2x^2+5x}{x^2-16} - \frac{x^2-7x-32}{x^2-16}$$

$$\frac{2x^2+5x-x^2+7x+32}{x^2-16}$$

$$\frac{x^2+12x+32}{x^2-16}$$

(PSD)

(DITS)

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

$$\textcircled{\frac{x+8}{x-4}}$$