

$$\textcircled{1} \frac{7x-1}{2x+5}$$

FINDING WHERE
RATIONAL EXPRESSION
IS UNDEFINED

SET DENOMINATOR
EQUAL TO ZERO AND
SOLVE

$$2x+5=0$$

$$2x=-5$$

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

$$\textcircled{2} \frac{8x-3}{x^3-7x^2+12x}$$

$$x^3-7x^2+12x=0$$

$$x(x^2-7x+12)=0 \quad \text{GCF}$$

$$x(x-3)(x-4)=0 \quad \text{PSO}$$

$$x=0 \quad x-3=0 \quad x-4=0$$

$$\textcircled{x=0} \quad \textcircled{x=3} \quad \textcircled{x=4}$$

$$\textcircled{3} \frac{4x+16}{4} \quad \text{GCF}$$

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

$$\frac{\cancel{4}(x+4)}{\cancel{4}}$$

$$\textcircled{x+4}$$

SIMPLIFYING RATIONAL
EXPRESSION

1. FACTOR TOP
FACTOR BOTTOM

2. CANCEL IF POSSIBLE

$$\textcircled{4} \frac{10x^3-5x^2}{5x^2} \quad \text{GCF}$$

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

$$\textcircled{2x-1}$$

$$\textcircled{5} \frac{x+5}{x^2+7x+60} \quad \text{PSO}$$

$$\frac{\cancel{(x+5)}}{\cancel{(x+5)}(x+12)}$$

$$\textcircled{\frac{1}{x+12}}$$

$$\textcircled{6} \frac{9-x}{x-9}$$

$$\frac{-x+9}{x-9} \quad \text{GCF}$$

$$\frac{-1(\cancel{x-9})}{\cancel{x-9}}$$

$$\textcircled{-1}$$

$$\textcircled{7} \frac{6x^3-30x^2}{15-3x} \quad \text{GCF}$$

$$\frac{6x^2(x-5)}{-3x+15} \quad \text{GCF}$$

$$\frac{6x^2(\cancel{x-5})}{-3(\cancel{x-5})}$$

$$\frac{\textcircled{6}x^2}{\textcircled{-3}}$$

$$\frac{2x^2}{-1}$$

$$\textcircled{-2x^2}$$

$$\textcircled{8} \frac{x^2-25}{x^2+13x+40} \quad \text{DOTS} \quad \text{PSO}$$

$$\frac{\cancel{(x+5)}(x-5)}{\cancel{(x+5)}(x+8)}$$

$$\textcircled{\frac{x-5}{x+8}}$$