

Pre-Calculus Sec 3-7 FRACTION REVIEW

Name _____

★ SIMPLIFY ★

$$1) \frac{7 \cdot 2}{7 \cdot 3} + \frac{5 \cdot 3}{7 \cdot 3}$$

$$\frac{14}{21} + \frac{15}{21}$$

$$\boxed{\frac{29}{21}}$$

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

$$\boxed{\frac{6-4x}{3x}}$$

$$3) \frac{\frac{3}{5} \cdot \frac{2}{7}}{\frac{7}{2}}$$

$$\boxed{\frac{6}{35}}$$

$$4) \frac{2 \cdot \frac{7}{8}}{1}$$

$$\boxed{\frac{14}{8} = \frac{7}{4}}$$

$$5) \frac{4 \left(\frac{3}{x} \right) \cdot \frac{12}{x}}{\frac{5}{x} - 1} - \frac{\frac{x}{5-x}}{\frac{x}{x} - \frac{x}{x}}$$

$$\frac{\frac{12}{x} \cdot \frac{x}{5-x}}{\frac{5-x}{x}}$$

$$\boxed{\frac{12}{5-x}}$$

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

$$\boxed{\frac{2x-2}{2x} = \frac{x-1}{x}}$$

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

$$\boxed{x+5}$$

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

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

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

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

$$9) \frac{4 \left(\frac{3x-1}{x+4} \right) + 1}{5 - \frac{3x-1}{x+4}} - \frac{\frac{12x-4}{x+4} + \frac{x+4}{x+4}}{\frac{5(x+4)}{x+4} - \frac{3x-1}{x+4}}$$

$$\frac{\frac{13x}{x+4} \cdot \frac{x+4}{2x+21}}{\frac{5x+20-3x+1}{x+4}} = \boxed{\frac{13x}{2x+21}}$$