

Name: .....

Date: ..... Score: .....

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## Adding and Subtracting Rational Expressions Practice

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①  $\frac{x-6}{12x-20} + \frac{x-2}{12x-20}$

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②  $\frac{3}{8} - \frac{3}{3x+4}$

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③  $\frac{x+1}{x-4} - \frac{x+1}{x^2-7x+12}$

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

\_\_\_\_\_

⑤  $\frac{2r}{r^2-s^2} + \frac{1}{r+s} - \frac{1}{r-s}$

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⑥  $\frac{3x+2}{3x+6} + \frac{x}{4-x^2}$

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⑦  $\frac{2}{5x^2+5x} - \frac{4}{3x+3}$

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⑧  $\frac{x}{x^2+9x+20} - \frac{4}{x^2+7x+12}$

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## Adding and Subtracting Rational Expressions Practice

### Answers

$$\textcircled{1} \quad \frac{x-6}{12x-20} + \frac{x-2}{12x-20}$$

$$\frac{2x-8}{12x-20}$$

$$\textcircled{2} \quad \frac{3}{8} - \frac{3}{3x+4}$$

$$\frac{9x-12}{8(3x+4)}$$

$$\textcircled{3} \quad \frac{x+1}{x-4} - \frac{x+1}{x^2-7x+12}$$

$$\frac{x+1}{x-3}$$

$$\textcircled{4} \quad \frac{4-x^2}{x^2-9} - \frac{x-2}{3-x}$$

$$\frac{x-2}{x^2-9}$$

$$\textcircled{5} \quad \frac{2r}{r^2-s^2} + \frac{1}{r+s} - \frac{1}{r-s}$$

$$\frac{2}{r+s}$$

$$\textcircled{6} \quad \frac{3x+2}{3x+6} + \frac{x}{4-x^2}$$

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

$$\textcircled{7} \quad \frac{2}{5x^2+5x} - \frac{4}{3x+3}$$

$$\frac{6-20x}{15x(x+1)}$$

$$\textcircled{8} \quad \frac{x}{x^2+9x+20} - \frac{4}{x^2+7x+12}$$

$$\frac{x-5}{(x+5)(x+3)}$$