

Adding and Subtracting Rational Expressions

Date _____ Period _____

Simplify each expression.

1) $\frac{4}{6} + \frac{x-5}{x^2-3x-10}$

2) $\frac{4}{x-4} + \frac{5}{x+2}$

3) $\frac{6k}{k+2} - \frac{5}{k-4}$

4) $\frac{6}{m+5} + \frac{4}{2m-6}$

5) $\frac{5n}{n+1} - \frac{5}{3n+3}$

6) $\frac{p+2}{p^2-2p-8} - \frac{2}{3p}$

7) $\frac{3}{n+1} - \frac{5}{n+6}$

8) $\frac{3}{b+1} - \frac{2}{b-5}$

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Simplify each expression.

1) $\frac{4}{6} + \frac{x-5}{x^2-3x-10}$

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

2) $\frac{4}{x-4} + \frac{5}{x+2}$

$$\frac{9x-12}{(x-4)(x+2)}$$

3) $\frac{6k}{k+2} - \frac{5}{k-4}$

$$\frac{6k^2-29k-10}{(k-4)(k+2)}$$

4) $\frac{6}{m+5} + \frac{4}{2m-6}$

$$\frac{8m-8}{(m-3)(m+5)}$$

5) $\frac{5n}{n+1} - \frac{5}{3n+3}$

$$\frac{15n-5}{3(n+1)}$$

6) $\frac{p+2}{p^2-2p-8} - \frac{2}{3p}$

$$\frac{p+8}{3p(p-4)}$$

7) $\frac{3}{n+1} - \frac{5}{n+6}$

$$\frac{-2n+13}{(n+6)(n+1)}$$

8) $\frac{3}{b+1} - \frac{2}{b-5}$

$$\frac{b-17}{(b-5)(b+1)}$$