

Elementary Algebra Skill

Adding and Subtracting Rational Expressions with Like Denominators

Simplify each expression.

$$1) \frac{5x}{12y^3} + \frac{x+2y}{12y^3} = \frac{3x+4y}{6y^3}$$

$$2) \frac{x-4y}{30x^2y^3} + \frac{x-4y}{30x^2y^3} = \frac{x-4y}{15x^2y^3}$$

$$3) \frac{3}{5r-25} + \frac{r+2}{5r-25} = \frac{r+5}{5(r-5)}$$

$$4) \frac{2}{6b+10} + \frac{b-6}{6b+10} = \frac{b-4}{6b+10}$$

$$5) \frac{6x-6}{3x^2-14x+15} - \frac{4}{3x^2-14x+15} = \frac{2}{x-3}$$

$$6) \frac{2n-3}{n^2-8n+12} - \frac{n-1}{n^2-8n+12} = \frac{1}{n-6}$$

$$7) \frac{3n+15}{n^2+7n+6} - \frac{n+3}{n^2+7n+6} = \frac{2}{n+1}$$

$$8) \frac{n+5}{4n^2+20n} - \frac{n-5}{4n^2+20n} = \frac{5}{2n(n+5)}$$

$$9) \frac{x-5}{6x^2-18x-60} - \frac{x-2}{6x^2-18x-60} = \frac{-1}{2(x-5)(x+2)}$$

$$10) \frac{3k-2}{3k^2-19k+6} + \frac{1}{3k^2-19k+6} = \frac{1}{k-6}$$