

Adding or Subtracting Rational Expressions with Like Denominators

Simplify each expression.

1) $\frac{u-6v}{24uv^3} - \frac{u-5v}{24uv^3}$

2) $\frac{4x+5y}{15x} - \frac{x+5y}{15x}$

3) $\frac{x+4y}{18y^2x^2} - \frac{x+3y}{18y^2x^2}$

4) $\frac{u+5v}{24uv} - \frac{u+3v}{24uv}$

5) $\frac{x+1}{9x+36} - \frac{x-2}{9x+36}$

6) $\frac{2r+2}{6r^2+r-12} + \frac{r-6}{6r^2+r-12}$

7) $\frac{b-1}{12b^2+8b} + \frac{b+5}{12b^2+8b}$

8) $\frac{2n-4}{27n^2-54n} + \frac{n-2}{27n^2-54n}$

9) $\frac{3b-5}{2b^2-15b+18} - \frac{b-2}{2b^2-15b+18}$

10) $\frac{n+4}{6n^3+24n^2} + \frac{n+4}{6n^3+24n^2}$

11) $\frac{a-5}{2a^2+a-15} + \frac{a}{2a^2+a-15}$

12) $\frac{6v}{4v^4-16v^3} - \frac{3v+12}{4v^4-16v^3}$

13) $\frac{4x+4}{x^2-2x-8} - \frac{3x+2}{x^2-2x-8}$

14) $\frac{3v-4}{2v^2+8v+6} - \frac{2v-7}{2v^2+8v+6}$

15) $\frac{4x+5}{36x^2+24x-12} - \frac{40x-7}{36x^2+24x-12}$

16) $\frac{5n-6}{n^2-10n+24} - \frac{6n-10}{n^2-10n+24}$

Answers to Adding or Subtracting Rational Expressions with Like Denominators

$$1) -\frac{1}{24uv^2}$$

$$2) \frac{1}{5}$$

$$3) \frac{1}{18yx^2}$$

$$4) \frac{1}{12u}$$

$$5) \frac{1}{3x+12}$$

$$6) \frac{1}{2r+3}$$

$$7) \frac{b+2}{6b^2+4b}$$

$$8) \frac{1}{9n}$$

$$9) \frac{1}{b-6}$$

$$10) \frac{1}{3n^2}$$

$$11) \frac{1}{a+3}$$

$$12) \frac{3}{4v^3}$$

$$13) \frac{1}{x-4}$$

$$14) \frac{1}{2v+2}$$

$$15) -\frac{1}{x+1}$$

$$16) \frac{1}{6-n}$$