

Adding/Subtracting Rational Expressions

Simplify each expression.

1) $\frac{u-v}{8v} + \frac{6u-3v}{8v}$

2) $\frac{m-3n}{6m^3n} - \frac{m+3n}{6m^3n}$

3) $\frac{5}{a^2+3a+2} + \frac{5a+1}{a^2+3a+2}$

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

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

6) $\frac{x+2}{2x^2+13x+20} - \frac{x+3}{2x^2+13x+20}$

11) $\frac{7}{3} - \frac{8}{12x-8}$

12) $\frac{5}{n+5} + \frac{4n}{2n+6}$

13) $\frac{2x}{5x+4} + \frac{6x}{2x+3}$

14) $\frac{2}{3x^2+12x} + \frac{8}{2x}$

20. $\frac{6}{x} + \frac{7}{5x^2}$

23. $\frac{6}{5x^3y} - \frac{1}{2x^2y^3}$

24. $\frac{5}{xy} + \frac{7}{2x^2}$

29. $7 - \frac{4}{x-9}$

$$30. \frac{x-1}{x-2} - \frac{x^2+4x-4}{x^2+4x-12}$$

$$31. \frac{x+2}{x-6} - \frac{x^2+5x+14}{x^2-2x-24}$$

$$33. \frac{x-4}{x^2+5x+6} + \frac{x-1}{x^2-4}$$

$$37. \frac{x+5}{x^2+3x-4} + \frac{x+2}{x^2-1}$$

$$38. \frac{x+1}{x^2+6x+9} + \frac{x-4}{x^2-9}$$