

Add & Subtract Rational Expressions with Like Denominators

Directions: Add or Subtract. Simplify.

1.) $\frac{7s}{10} - \frac{2s}{10}$

$$\frac{5}{2}$$

2.) $\frac{4x+3}{x+2} + \frac{3x+4}{x+2}$

$$\frac{7(x+1)}{x+2}$$

3.) $\frac{6x}{12bx} + \frac{4b}{12bx}$

$$\frac{3x+2b}{6bx}$$

4.) $\frac{4x+3}{x+2} - \frac{3x+1}{x+2}$

$$1$$

5.) $\frac{3y+4}{y^2+2y-15} - \frac{2y-7}{y^2+2y-15}$

$$\frac{1}{y+5}$$

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

$$\frac{-2(a-2)}{(a-1)^2}$$

7.) $\frac{x^2-y^2}{x+y} + \frac{x^2-y^2}{x+y}$

$$2(x-y)$$

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

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

$$9.) \frac{3r-1}{r^2-8r+12} - \frac{r+3}{r^2-8r+12}$$

$$\frac{2}{r-6}$$

$$10.) \frac{n-2}{9n-36} + \frac{n-6}{9n-36}$$

$$\frac{2}{9}$$

$$11.) \frac{r+2}{5r^2+25r+20} + \frac{4r+3}{5r^2+25r+20}$$

$$\frac{1}{r+4}$$

$$12.) \frac{5}{6k^2+12k} - \frac{k+6}{6k^2+12k}$$

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

$$13.) \frac{x^4-3}{x^2-1} + \frac{2}{x^2-1}$$

$$x^2+1$$

$$14.) \frac{3x-5}{4x} - \frac{3x+1}{4x}$$

$$\frac{-3}{2x}$$

$$15.) \frac{x(x-1)}{x+4} + \frac{-x-24}{x+4}$$

$$x-6$$

$$16.) \frac{2x(x-2)}{x^2-16} - \frac{x^2-9x-4}{x^2-16}$$

$$\frac{x+1}{x-4}$$