

Adding and Subtracting Rational Expressions with Unlike Denominators II

Simplify each expression.

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

$$2) \frac{3}{y^2 - 9y} - \frac{2}{y^2 - 8y - 9}$$

$$3) \frac{2}{w^2 + 3w + 2} + \frac{4}{w^2 + 6w + 8}$$

$$4) \frac{t}{t^2 - 25} - \frac{1}{t^2 - 10t + 25}$$

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

$$6) \frac{v}{2v^2 + 7v - 4} + \frac{2}{2v^2 - 9v + 4}$$

$$7) \frac{3}{a^2 - 6a} - \frac{a}{3a^2 - 17a - 6}$$

$$8) \frac{3}{x^3 - 4x^2} + \frac{2}{x^3 - 8x^2 + 16x}$$

$$9) \frac{5}{b^2 - b + 1} - \frac{b}{b^3 + 1}$$

$$10) \frac{x}{x^2 - y^2} + \frac{y}{x^2 - 4xy - 5y^2}$$

Answers to Adding and Subtracting Rational Expressions with Unlike Denominators II

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

$$2) \frac{y+3}{y(y-9)(y+1)}$$

$$3) \frac{6}{(w+1)(w+4)}$$

$$4) \frac{t^2-6t-5}{(t-5)^2(t+5)}$$

$$5) \frac{n^2-3n-1}{(n+1)(n-3)(n-2)}$$

$$6) \frac{v^2-2v+8}{(v+4)(v-4)(2v-1)}$$

$$7) \frac{3+9a-a^2}{a(a-6)(3a+1)}$$

$$8) \frac{5x-12}{x^2(x-4)^2}$$

$$9) \frac{4b+5}{b^3+1}$$

$$10) \frac{x^2-4xy-y^2}{(x-y)(x+y)(x-5y)}$$