

Adding and Subtracting Rational Expressions with Unlike Denominators I

Simplify each expression.

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

2) $\frac{2}{3y^3} - \frac{6x}{4xy}$

3) $\frac{5y}{6} - \frac{2x}{3y^3}$

4) $\frac{3a}{12a^2b} - 5a$

5) $\frac{6}{m-5} - \frac{2m}{m-4}$

6) $\frac{3}{5r+6} + \frac{2r}{r-3}$

7) $\frac{3x}{x+3} - \frac{6}{x+6}$

8) $\frac{5x}{x-5} - \frac{3}{2x-1}$

9) $\frac{x-6}{x-4} + \frac{3x}{6x^3+36x^2}$

10) $3 + \frac{2}{5m^2+3m-2}$

11) $\frac{2}{6p+30} + \frac{6}{p-4}$

12) $\frac{5p}{p+5} - \frac{6p}{p-1}$

Answers to Adding and Subtracting Rational Expressions with Unlike Denominators I

$$1) \frac{4m^2 + 15}{6m}$$

$$2) \frac{4 - 9y^2}{6y^3}$$

$$3) \frac{5y^4 - 4x}{6y^3}$$

$$4) \frac{-20a^2b + 1}{4ab}$$

$$5) \frac{-24 + 16m - 2m^2}{(m - 4)(m - 5)}$$

$$6) \frac{15r - 9 + 10r^2}{(5r + 6)(r - 3)}$$

$$7) \frac{3x^2 + 12x - 18}{(x + 3)(x + 6)}$$

$$8) \frac{10x^2 - 8x + 15}{(2x - 1)(x - 5)}$$

$$9) \frac{2x^3 - 71x - 4}{2x(x + 6)(x - 4)}$$

$$10) \frac{15m^2 + 9m - 4}{(5m - 2)(m + 1)}$$

$$11) \frac{19p + 86}{3(p + 5)(p - 4)}$$

$$12) \frac{-p^2 - 35p}{(p + 5)(p - 1)}$$