

Завдання 1. Спростити вираз:

$$\frac{15}{2a-6b} + \frac{13}{3a-9b} = \frac{\cancel{15}}{(a-b)} + \frac{\cancel{13}}{(a-b)} = \frac{\cdot 15 + \cdot 13}{(a-b)} = \frac{+}{(a-b)} = \frac{+}{a-b}.$$

Завдання 2. Додати:

$$\begin{aligned} \frac{2x}{4x^2-9y^2} + \frac{3y}{4x^2-12xy+9y^2} &= \frac{\cancel{2x}^x}{(x-y)(x-y)} + \frac{\cancel{3y}^y}{(x-y)^2} = \frac{2x(x-y) + 3y(x-y)}{(x-y)^2(x-y)} = \\ &= \frac{x^2 - xy + xy + y^2}{(x-y)^2(x-y)} = \frac{x^2 + y^2}{(x-y)^2(x-y)}. \end{aligned}$$

Завдання 3. Відняти:

$$\begin{aligned} \frac{2a^2+9}{a^3-27} - \frac{a}{a^2+3a+9} &= \frac{2a^2+9}{(-)(a^2-3a+)} - \frac{\cancel{a}}{a^2+3a+9} = \\ &= \frac{2a^2+9-a(-)}{(-)(a^2+3a+9)} = \frac{2a^2+9-a}{(-)(a^2+3a+9)} = \frac{a^2+a}{(-)(a^2+3a+9)} = \frac{+}{-}. \end{aligned}$$