

$$\frac{3}{x+y} \cdot \frac{3x-3y}{2x-3y} \left(\frac{2x-3y}{x^2-y^2} - 2x+3y \right) = \frac{3}{x+y} \cdot \frac{3x-3y}{2x-3y} \left(-2x+3y + \frac{2x-3y}{x^2-y^2} \right) =$$

$$= \frac{3}{x+y} \cdot \frac{3x-3y}{2x-3y} \left((-2x+3y) + \frac{2x-3y}{x^2-y^2} \right) = \frac{3}{x+y} \cdot \frac{3x-3y}{2x-3y} \left(\frac{(-2x+3y)(x^2-y^2)}{x^2-y^2} + \frac{2x-3y}{x^2-y^2} \right) =$$

$$= \frac{3}{x+y} \cdot \frac{3x-3y}{2x-3y} \frac{(-2x+3y)(x^2-y^2) + (2x-3y)}{x^2-y^2} =$$

$$= \frac{3}{x+y} \cdot \frac{3x-3y}{2x-3y} \frac{(-2x^3 + 2xy^2 + 3x^2y - 3y^3) + (2x-3y)}{x^2-y^2} =$$

$$= \frac{3}{x+y} \cdot \frac{3x-3y}{2x-3y} \frac{(-2x^3 + 3x^2y + 2xy^2 - 3y^3) + (2x-3y)}{x^2-y^2} =$$

$$= \frac{3}{x+y} \cdot \frac{3x-3y}{2x-3y} \frac{-2x^3 + 3x^2y + 2xy^2 - 3y^3 + 2x-3y}{x^2-y^2} =$$

$$= \frac{3}{x+y} + \frac{3x-3y}{2x-3y} \frac{2x^3 - 3x^2y - 2xy^2 + 3y^3 - 2x+3y}{x^2-y^2} =$$

$$= \frac{3}{x+y} + \frac{(3x-3y)(2x^3 - 3x^2y - 2xy^2 + 3y^3 - 2x+3y)}{(2x-3y)(x^2-y^2)} =$$

$$= \frac{3}{x+y} + \frac{3(x-y)(x^2-y^2-1)(2x-3y)}{(2x-3y)(x+y)(x-y)} =$$

$$= \frac{3}{x+y} + \frac{3(x^2-y^2-1)}{x+y} =$$

$$= \frac{3+3(x^2-y^2-1)}{x+y} =$$

$$= \frac{3+(3x^2-3y^2-3)}{x+y} =$$

$$= \frac{3+3x^2-3y^2-3}{x+y} =$$

$$=\frac{3x^2-3y^2}{x+y}=$$

$$=\frac{(3x-3y)(x+y)}{x+y}=$$

$$=3x-3y$$

$$\left(\frac{m-n}{mn} - \frac{3m+n}{mn-m}^2 + \frac{3n+m}{mn-n}^2 \right) \cdot \frac{2m+2n}{mn} + \frac{2m}{n-m} = \left(\frac{m-n}{mn} - \frac{3m+n}{mn-m}^2 + \frac{3n+m}{mn-n}^2 \right) \frac{mn}{2m+2n} + \frac{2m}{n-m} =$$

$$= \left(\frac{m-n}{mn} - \frac{3m+n}{-m^2+mn}^2 + \frac{m+3n}{mn-n}^2 \right) \frac{mn}{2m+2n} + \frac{2m}{-m+n} = \left(\frac{m-n}{mn} - \frac{3m+n}{-m^2+mn}^2 + \frac{m+3n}{mn-n}^2 \right) \frac{mn}{2(m+n)} + \frac{2m}{-m+n} =$$

$$= \left(\frac{m-n}{mn} + \frac{3m+n}{m^2-mn}^2 + \frac{m+3n}{mn-n}^2 \right) \frac{mn}{2(m+n)} - \frac{2m}{m-n} = \left(\frac{m-n}{mn} + \frac{3m+n}{(m-n)m}^2 + \frac{m+3n}{(m-n)n}^2 \right) \frac{mn}{2(m+n)} - \frac{2m}{m-n} =$$

$$= \left(\frac{(m-n)^2}{mn(m-n)} + \frac{(3m+n)n}{(m-n)mn} + \frac{(m+3n)m}{(m-n)nm} \right) \frac{mn}{2(m+n)} - \frac{2m}{m-n} =$$

$$= \frac{(m-n)^2 + (3m+n)n + (m+3n)m}{mn(m-n)} \frac{mn}{2(m+n)} - \frac{2m}{m-n} =$$

$$= \frac{(m^2 - 2mn + n^2) + (3m+n)n + (m+3n)m}{mn(m-n)} \frac{mn}{2(m+n)} - \frac{2m}{m-n} =$$

$$= \frac{(m^2 - 2mn + n^2) + (3mn+n^2) + (m^2 + 3mn)}{mn(m-n)} \frac{mn}{2(m+n)} - \frac{2m}{m-n} =$$

$$= \frac{m^2 - 2mn + n^2 + 3mn + n^2 + m^2 + 3mn}{mn(m-n)} \frac{mn}{2(m+n)} - \frac{2m}{m-n} = \frac{2m^2 + 4mn + 2n^2}{mn(m-n)} \frac{mn}{2(m+n)} - \frac{2m}{m-n} =$$

$$= \frac{(2m^2 + 4mn + 2n^2)mn}{2mn(m-n)(m+n)} - \frac{2m}{m-n} = \frac{(2m+2n)(m+n)mn}{2mn(m-n)(m+n)} - \frac{2m}{m-n} = \frac{2m+2n}{2(m-n)} - \frac{2m}{m-n} =$$

$$= \frac{2m+2n}{2(m-n)} - \frac{2^2m}{(m-n)2} = \frac{(2m+2n)-2^2m}{2(m-n)} = \frac{(2m+2n)-4m}{2(m-n)} = \frac{2m+2n-4m}{2(m-n)} = \frac{-2m+2n}{2(m-n)} =$$

$$= -\frac{2m-2n}{2(m-n)} = -\frac{2(m-n)}{2(m-n)} = -1$$

Всё что могу