



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

organizace

Název projektu:

Anotace

Sčítání lomených výrazů

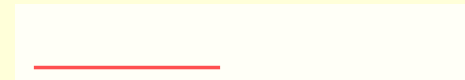
Matematika 9

$$1) x^2 - 9 =$$

$$2) 2x^2 + 8 =$$

$$3) 4x^4 - 12x^2a^2 + 9a^4 =$$

$$4) 2x^2 - 2 =$$



$$1) x^2 - 9 = (x - 3) \cdot (x + 3)$$

$$2) 2x^2 + 8 = 2 \cdot (x^2 + 4)$$

$$3) 4x^4 - 12x^2a^2 + 9a^4 = (2x^2 - 3a^2) \cdot (2x^2 - 3a^2)$$

$$4) 2x^2 - 2 = 2 \cdot (x^2 - 1) = \underline{2 \cdot (x + 1) \cdot (x - 1)}$$



$$\begin{array}{l} 1) \quad 4x^2 y = \\ \quad 12 xy^2 = \\ 2) \quad 3y = \\ \quad 4y^2 = \end{array}$$

$$3) \quad 5x + 5 =$$

$$6x + 6 =$$

$$4) \quad 3x^2 - 27 =$$

$$x^2 - 9 =$$

$$x^2 - 3x =$$



$$\left[\begin{array}{l} 1) \quad 4x^2 y = \quad \quad \quad \\ \quad 12 xy^2 = \quad \quad \quad \end{array} \right] \quad n = 12x^2 y^2$$

$$\left[\begin{array}{l} 2) \quad 3y = \quad \quad \quad \\ \quad 4y^2 = \quad \quad \quad \end{array} \right] \quad n = 12y^2$$

$$\begin{array}{l} 3) \quad 5x + 5 = \quad 5 \cdot \underline{(x+1)} \\ \quad 6x + 6 = \quad 6 \cdot \underline{(x+1)} \end{array} \quad n = \underline{30 \cdot (x+1)}$$

$$4) \quad 3x^2 - 27 = \quad 3 \cdot (x^2 - 9) \quad \in 3 \cdot \underline{(x-3)} \cdot \underline{(x+3)}$$

$$x^2 - 9 = \quad \underline{(x-3)} \cdot \underline{(x+3)}$$

$$x^2 - 3x = \quad \underline{x} \cdot \underline{(x-3)}$$

$$\underline{n = 3x \cdot (x-3) \cdot (x+3)}$$



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

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

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



-

$$1) \frac{x+y}{x^2} + \frac{x-y}{xy} = \frac{yx + y^2 + x^2 - yx}{x^2y} = \frac{x^2 + y^2}{x^2y} \quad x \neq 0; y \neq 0$$

$$2) \frac{a-b}{a+b} + \frac{4ab}{a^2-b^2} = \frac{a^2 - 2ab + b^2 + 4ab}{(a-b) \cdot (a+b)} = \frac{a^2 + 2ab + b^2}{a^2 - b^2} = \frac{\cancel{(a+b)} \cdot (a+b)}{(a-b) \cdot \cancel{(a+b)}} = \frac{a+b}{a-b} \quad a \neq \pm b$$

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

$$x \neq y$$

