

Algebarski razlomci – zadaci za vježbu

1. Skrati razlomke:

$$1) \frac{3a+3b}{2a+2b}$$

$$2) \frac{10a-10}{12-12a}$$

$$3) \frac{12x^2y-18xy^2}{12x^2y-8x^3} =$$

R:

$$\left(\frac{3}{2}\right)$$

$$\left(-\frac{5}{6}\right)$$

$$\left(\frac{6xy(2x-3y)}{4x^2(3y-2x)} = -\frac{3y}{2x}\right)$$

2. Zbroji razlomke:

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

$$2) \frac{a+1}{5} - \frac{2-a}{2} =$$

$$3) \frac{x-y}{8x} + \frac{2x+y}{12x} - \frac{x-5y}{16x} + 3 =$$

$$4) \frac{a+b}{3a-4b} - \frac{a-b}{4b+3a} =$$

$$5) \frac{3a}{16a^2-9b^2} - \frac{1}{3b-4a} =$$

$$\left(\frac{xy-2}{x^3y^2}\right)$$

$$\left(\frac{7a-8}{10}\right)$$

$$\left(\frac{155x+13y}{48x}\right)$$

$$\left(\frac{(3a+4b)(a+b)-(3a-4b)(a-b)}{9a^2-16b^2} = \frac{14ab}{9a^2-16b^2}\right)$$

$$\left(\frac{7a+3b}{16a^2-9b^2}\right)$$

3. Provedi naznačene operacije i reduciraj:

$$1) \frac{a^2-9}{5b} \cdot \frac{15b}{3-a} =$$

$$2) \frac{a^2-16}{a+1} : (a-4) =$$

$$3) \left(\frac{x}{y} - \frac{y}{x}\right) \cdot \frac{1}{x^2-y^2} =$$

$$4) \left(\frac{a}{b} - 2 + \frac{b}{a}\right) : \frac{a-b}{a^2b^2} =$$

$$5) \frac{6xy-6y^2}{x^2+xy} \cdot \frac{x(y^2-x^2)}{3y^2} =$$

$$\left(\frac{(a-3)(a+3)}{5b} \cdot \frac{-15b}{a-3} = -3(a+3)\right)$$

$$\left(\frac{a+4}{a+1}\right)$$

$$\left(\frac{1}{xy}\right)$$

$$(ab(a-b))$$

$$\left(-\frac{2(x-y)^2}{y}\right)$$