REPETITORIJ ZADATAKA – 1. razred – 1. polugodište – R_1_p

1) Izračunaj:

a) $\left(2:\frac{1}{18}-\frac{7}{20}\cdot 120\right):\left[\left(\frac{3}{4}+0.25\right):\frac{2}{3}+1.5\right]=$

b) $\left(\frac{0.75}{1\frac{2}{3}-1.2}:\frac{3+1\frac{1}{2}}{1.4}\right)\cdot\frac{\frac{1}{2}-\frac{1}{3}}{\frac{1}{3}-\frac{1}{4}}=$

c) $\left[\left(\frac{2}{3}-\frac{8}{15}\right)\cdot 5\frac{1}{7}-2\right]:\left[\left(0.75+\frac{1}{4}\right):\frac{2}{3}+0.08\right]=$

d) $\frac{\frac{9}{14}-\frac{2}{3}\cdot\left(\frac{5}{7}-\frac{1}{2}\right)}{\frac{4}{5}-\frac{3}{2}:1\frac{5}{7}}:3\frac{1}{3}=$

2) Provedi naznačene algebarske operacije:

a) $(a-b)(2a+3b-1)-(a+b)(3a-2b+1)=$

b) $(2a-b+3c)^2=$

c) $(5a+3b+4c)(5a-3b-4c)=$

d) $(3a^3-5b^2c^4)(3a^3+5b^2c^4)=$

e) $(2x-y)(4x^2+2x+y^2)=$

3) Izračunaj:

a) $\frac{81^{n+1}\cdot 3^{n-4}}{27^n\cdot 9^{n-1}}=$

b) $(0.25x^{-4}y^{-3})^2\cdot\left(-\frac{x^{-3}}{4y^2}\right)^{-3}=$

4) Napiši u obliku potencije:

a) $2\cdot 9^6+15\cdot 3^{11}+2\cdot 27^4=$

b) $20\cdot 4^5+3\cdot 2^{13}+5\cdot 8^4=$

5) Skrati razlomke:

a) $\frac{x^2-5x+6}{2x^2-8}=$

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

c) $\frac{2x^2+x-3}{4x^2+12x+9}=$

d) $\frac{(2x-3)^2+24x}{4x^2-9}=$

e) $\frac{x^2-2x+15}{x^2+8x+15}:(x^2-25)=$

6) Izračunaj:

a) $\frac{1}{x}-\frac{x-9}{x^2-9}+\frac{3}{3x-x^2}=$

b) $\left(1-\frac{4ab}{(a+b)^2}\right):\frac{a^2-b^2}{a^2+2ab+b^2}=$

c) $\left(\frac{2}{a^2-a}-\frac{2a}{1-a^2}\right)\cdot\frac{2a^2+2a}{a^3-1}-\frac{4}{a-1}=$

d) $\frac{a^2}{a+5}+\frac{25a}{5-a}\cdot\left(\frac{a-15}{a^2-25}+\frac{5}{a^2-5a}\right)=$

e) $\frac{1}{a^2+2a+4}+\frac{a^2}{a^3-8}:\frac{4a}{a^2-4}=$

f) $\left(\frac{4x+12}{x^2-3x}+\frac{x}{9-x^2}\right):\frac{x+6}{x+3}-\frac{5}{x-3}=$

7) Pojednostavni:

a) $\frac{a^{-1}-b^{-1}}{ab^{-1}-a^{-1}b}:\left(\frac{1}{a}+\frac{1}{b}\right)^{-1}=$

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

8) Podijeli polinome i rezultat provjeri:

a) $(x^6-38):(x^3-6)=$

b) $(x^4-10):(x^2+3)=$