1.sat – Ponavljanje cjeline Kvadriranje i korjenovanje

1.) Koristeći se formulama ($(a \cdot b)^2 = a^2 \cdot b^2$, $(a : b)^2 = a^2 : b^2$),tj. na najlakši način riješite sljedeće zadatke:

a) $\left(\frac{5}{9}\right)^2 \cdot 9^2 =$

b) $\left(\frac{5}{12}\right)^2 \cdot \left(\frac{12}{25}\right)^2 =$

c) $\left(3\frac{2}{11}\right)^2 \cdot \left(3\frac{1}{7}\right)^2 =$

d) $(3)^2 \cdot (-9)^2 \cdot \left(\frac{1}{27}\right)^2 =$

e) $(-4)^2 \cdot \left(\frac{1}{16}\right)^2 \cdot \left(\frac{8}{3}\right)^2 =$

f) $\left(1\frac{1}{5} \cdot 0.5\right)^2 =$

g) $\left(1\frac{1}{2} : 4\frac{1}{2}\right)^2 =$

h) $\left(\frac{5}{13}\right)^2 \cdot 26^2 : 5^2 =$

i) $\left(\frac{9}{5}\right)^2 : \left(1\frac{2}{25}\right)^2 \cdot \left(-1\frac{1}{0.2}\right)^2 =$

j) $\left(1\frac{1}{14} \cdot \frac{2}{3} \cdot 1.4\right)^2 - 1.3^2 =$

2.) Provedi sljedeća kvadriranja:

a) $\left(\frac{7}{4xy}\right)^2 =$

b) $\left(-\frac{3a}{4b}\right)^2 =$

c) $(0.5abc)^2 =$

d) $\left(\frac{3}{2}abc\right)^2 =$

e) $\left(\frac{0.2a}{0.5b}\right)^2 =$

f) $(5xy)^2 - (2xy)^2 =$

g) $3 \cdot (4ab)^2 - 5 \cdot (2ab)^2 =$

3.) Provedite naznačena kvadriranja:

a) $(a + 2)^2 =$

b) $(3a + 5)^2 =$

c) $(4a + 2b)^2 =$

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

e) $(a - 4)^2 =$

f) $(3x - 2y)^2 =$

g) $\left(\frac{1}{3}m - \frac{1}{2}n\right)^2 =$

h) $\left(\frac{3}{4}x - \frac{1}{2}y\right)^2 + \left(\frac{1}{4}x - \frac{1}{6}y\right)^2 =$

i) $(2xy + 3z)^2 - (3x - 7)^2 =$

4.) Pojednostavite:

a) $0.6 \cdot 10^4 : (0.2 \cdot 10^3) =$

b) $\frac{3}{4}(-10)^5 : \left(\frac{4}{3} \cdot (-10)^2\right) =$

c) $-3 \cdot 10^3 : \left(\frac{6}{5} \cdot 10^5\right) \cdot (-4) \cdot 10^5 =$

5.) Izračunajte :

a) $\left(3\sqrt{5}\right)^2 =$

b) $\left(0.5\sqrt{6}\right)^2 =$

c) $\left(\frac{1}{3}\sqrt{3}\right)^2 =$

d) $\sqrt{5\left(\sqrt{5}+\sqrt{1.8}+\sqrt{12.8}+\sqrt{16.2}\right)} =$

6.) Izračunaj:

a) $2\sqrt{27}+\sqrt{12} =$

b) $2\sqrt{80}+3\sqrt{125} =$

c) $5\sqrt{252}+2\sqrt{343} =$

d) $2\sqrt{99}+5\sqrt{75}-3\sqrt{176}+2\sqrt{108} =$

7.) Djelomično korjenuj i riješi zadatak:

a) $\sqrt{27}-\frac{\sqrt{24}}{2\sqrt{2}} =$

b) $\sqrt{18}-\frac{\sqrt{50}}{3\sqrt{3}} =$

8.) Izračunaj:

a) $\left(2\sqrt{2}+\sqrt{7}\right)^2-\left(4\sqrt{14}+4\right) =$

b) $\left(3\sqrt{5}+\sqrt{3}\right)^2-6\left(\sqrt{15}+9\right) =$

9.) 115. i 116. zadatak iz udžbenika na strani 145.