Preverjanje znanja 1. test
Potence in koreni

1. Izračunaj:

   (a) $(-2)^{-4} + (-4)^0 =$

   (b) $3^2 + 4^{-2} =$

   (c) $2^{-2} + 3^{-2} =$

   (d) $(-\frac{1}{3})^{-5} =$

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

   (f) $2\sqrt{3} + 5\sqrt{3} =$

   (g) $2\sqrt{5} + 6\sqrt{7} - 3\sqrt{5} - 5\sqrt{7} =$

   (h) $\sqrt{75} + \sqrt{108} - \sqrt{147} =$

   (i) $\sqrt{45} + \sqrt{80} - \sqrt{180} =$

   (j) $\sqrt{5}(\sqrt{7} - \sqrt{5}) =$

   (k) $(2 - \sqrt{3})(2 + \sqrt{3}) =$

   (l) $(3 + \sqrt{5})^2 =$

   (m) $\sqrt[3]{\sqrt{27}} =$

   (n) $\sqrt[4]{\sqrt[5]{36^{10}}} =$

   (o) $\sqrt[3]{27} - \sqrt{81} + \sqrt[5]{32} \cdot \sqrt[4]{81} =$

2. Poenostavi:

(a) $(2x^2)^5 \cdot (2x^{-3})^{-5} =$

(b) $(3x)^4 \cdot (9x^{-2})^{-4} =$

(c) $(3^{-1}x^6y^{-4})^{-2} \cdot (3x^{-4}y^4)^{-3} =$

(d) $(x^{-4}y^5)^3 : (x^{-3}y^4)^3 =$

(e) $(-\frac{3x}{2y})^3 \cdot (\frac{4y}{3x})^2 =$

(f) $(\frac{x^6y^4x^{-10}}{y^{-6}x^{-5}y^9})^3 =$

(g) $(\frac{2x^9y^{-3}}{x^{-2}y^5})^{-3} : (\frac{2x^4y^{-6}}{x^{-4}})^{-4} =$

(h) $\sqrt{16a^4} =$

(i) $\sqrt{a^2b^6} =$

(j) $\sqrt{9a^4b^{12}} =$

(k) $\sqrt[3]{8a^3} =$

(l) $\sqrt[3]{a^6b^9} =$

3. Racionaliziraj imenovalec:

(a) $\frac{15}{\sqrt{3}} =$

(b) $\frac{1}{\sqrt{7}} =$

(c) $\frac{4}{4-\sqrt{2}} =$

(d) $\frac{2}{3+\sqrt{5}} =$