

Tehted astmete ja juurtega

$$1) 8^{\frac{1}{3}} + 16^{0,25} + (\sqrt[3]{4})^2 - 2^{-1}$$

$$2) 27^{\frac{2}{3}} + 16^{-0,5} - 2^{-2} + \left(3\frac{3}{8}\right)^{\frac{1}{3}}$$

$$3) 0,027^{\frac{1}{3}} - \left(-\frac{1}{2}\right)^{-2} + 16^{0,75} - \left(-\frac{1}{3}\right)^{-1} + 7,5^0$$

$$4) \left(\frac{1}{8}\right)^{\frac{2}{3}} \cdot (0,81)^{\frac{1}{2}} \cdot 7^0 + \left(2\frac{1}{4}\right)^{\frac{1}{2}} - 32^{\frac{1}{5}} + 125^{\frac{2}{3}}$$

$$5) \left(a^{\frac{1}{2}} + b^{\frac{1}{2}}\right)^2 - 2\sqrt{ab}$$

$$6) \frac{\sqrt{a}}{\sqrt{a} - \sqrt{b}} - \left(\frac{a^{0,5} + b^{0,5}}{\sqrt{b}}\right)^{-1}$$

$$7) (\sqrt{x} - 2\sqrt{y})(\sqrt{y} + \sqrt{x})$$

$$8) \left(\frac{\sqrt{a} + 1}{\sqrt{a} - 1} - \frac{\sqrt{a} - 1}{\sqrt{a} + 1} + 4\sqrt{a}\right) \left(\sqrt{a} - \frac{1}{\sqrt{a}}\right)$$

$$9) \left\{ \left(\frac{1}{8}\right)^{\frac{1}{3}} \cdot \left(\frac{1}{9}\right)^{\frac{1}{2}} + \left[\left(\frac{3}{4}\right)^{-2} \cdot \left(\frac{1}{2}\right)^{-1} \right]^0 \right\} : 0,25^{0,5}$$

$$10) (\sqrt{a} - 3)(\sqrt{a} + 2) - \sqrt[3]{2,6a^4} \cdot \sqrt[3]{\frac{5}{13a}}$$

$$11) \left(\frac{2}{3 - \sqrt{x}} + \frac{2}{3 + \sqrt{x}}\right) : \frac{12}{81 - x^2}$$

$$12) \sqrt[3]{1,8b} : \sqrt[3]{\frac{9}{5b^2}} + (5 + \sqrt{b})(2 - \sqrt{b})$$

$$13) \left(\frac{\sqrt{a}}{\sqrt{a} + \sqrt{b}} + \frac{\sqrt{a}}{\sqrt{a} - \sqrt{b}}\right) : \frac{2}{a^2 - b^2}$$

$$14) \left(9^{-\frac{2}{3}}\right)^{\frac{3}{4}} - \left(25^{-\frac{5}{2}}\right)^{\frac{1}{10}} + \left[\left(\frac{3}{4}\right)^{-1} \cdot \frac{2}{9}\right]^0 : 36^{-\frac{1}{2}} + 1 : \sqrt{5}$$

$$15) (\sqrt{c} + c)^2 - \sqrt{1\frac{1}{3}c} \cdot \sqrt{\frac{3c^3}{4}}$$

$$16) \left(\frac{\sqrt{y}}{\sqrt{x} - \sqrt{y}} - \frac{\sqrt{y}}{\sqrt{x} + \sqrt{y}}\right) \cdot \frac{x^2 - y^2}{y}$$

$$17) (3 - \sqrt{y})(\sqrt{y} + 1) + \sqrt{\frac{6}{y}} \cdot \sqrt{\frac{y^3}{6}}$$

$$18) 4x\sqrt{9x} + 3\sqrt{x^3} - \sqrt{8x^2} \cdot \sqrt{2x}$$

$$19) -\sqrt{b} \left(\frac{\sqrt{a}}{a-b} - \frac{1}{\sqrt{a} - \sqrt{b}}\right)$$

$$20) \frac{\sqrt{a} + \sqrt{b}}{ab} : \left(\frac{1}{\sqrt{a}} + \frac{1}{\sqrt{b}}\right)$$