



# תרגול פסיכומטרי - שורשים למתקדמים - פתרונות

$$1. \quad \sqrt[4]{\sqrt[5]{\frac{1}{\sqrt{49}}}} = 4.5 \cdot \frac{1}{\sqrt{49}} = \frac{20}{\sqrt{49}} = \sqrt[2]{49} = 7$$

$$2. \quad \sqrt[5]{8} \cdot \sqrt[5]{4} = \sqrt[5]{8 \cdot 4} = \sqrt[5]{32} = 2$$

$$3. \quad \frac{\sqrt[3]{128}}{\sqrt[3]{2}} = \sqrt[3]{\frac{128}{2}} = \sqrt[3]{64} = 4$$

$$4. \quad \sqrt[3]{\frac{x}{y}} \cdot \sqrt[3]{\frac{y^2}{x}} = \sqrt[3]{\frac{x}{y} \cdot \frac{y^2}{x}} = \sqrt[3]{y} = \sqrt[3]{y}$$

$$5. \quad \sqrt[3]{\sqrt{z}} = \sqrt[3]{\sqrt[2]{z}} = 2 \cdot \sqrt[3]{z} = \sqrt[6]{z}$$

$$6. \quad \frac{A^{\frac{1}{2}}}{A^{\frac{1}{3}}} = \frac{A^{\frac{3}{6}}}{A^{\frac{2}{6}}} = A^{\frac{3-2}{6}} = A^{\frac{1}{6}} = \sqrt[6]{A}$$

$$7. \quad \sqrt[6]{A} \cdot \sqrt[3]{\sqrt[4]{B}} = \sqrt[2]{\sqrt[6]{A}} \cdot \sqrt[3]{\sqrt[4]{B}} = 2 \cdot \sqrt[6]{A} \cdot 3 \cdot \sqrt[4]{B} = 12 \sqrt[6]{A} \cdot \sqrt[4]{B} = 12 \sqrt[12]{A \cdot B}$$

$$8. \quad \sqrt[3]{\sqrt[6]{11^9}} = 3 \cdot \sqrt[6]{11^9} = 18 \sqrt[18]{11^9} = 11^{\frac{9}{18}} = 11^{\frac{1}{2}} = \sqrt{11}$$

$$9. \quad \frac{16^{\frac{1}{3}}}{16^{\frac{1}{4}}} = 16^{\frac{1}{3} - \frac{1}{4}} = 16^{\frac{4-3}{12}} = 16^{\frac{1}{12}} = 16^{\frac{1}{2} \cdot \frac{1}{6}} = \sqrt{16} = 4$$