

① KÖKLÜ SAYILAR-2

$$\frac{\sqrt[3]{0,128}}{\sqrt[3]{0,002}} =$$

$$\frac{\sqrt[4]{0,243}}{\sqrt[4]{0,003}} =$$

$$\sqrt{\frac{5}{2}} + \frac{\sqrt{2}}{\sqrt{5}} =$$

$$\sqrt{\frac{7}{3}} + \frac{\sqrt{3}}{\sqrt{7}} =$$

$$\frac{\sqrt{2} \cdot \sqrt{8}}{\sqrt{0,49} - \sqrt{0,25}} =$$

$$\frac{\sqrt{3} \cdot \sqrt{27}}{\sqrt{0,81} - \sqrt{0,36}} =$$

$$\sqrt{2-\sqrt{3}} \cdot \sqrt{2+\sqrt{3}} =$$

$$\sqrt{7-\sqrt{5}} \cdot \sqrt{7+\sqrt{5}} =$$

$$\sqrt{4+\sqrt{2}} \cdot \sqrt{4-\sqrt{2}} =$$

$$\sqrt{9+\sqrt{7}} \cdot \sqrt{9-\sqrt{7}} =$$

$$\sqrt{27} \text{ sayısının kaç katı } \sqrt{33} \text{ eder?}$$

$$\sqrt{20} \text{ sayısının kaç katı } \sqrt{35} \text{ eder?}$$

$$\left(\frac{1}{\sqrt{x+2}} - \frac{1}{\sqrt{x-2}} \right) \cdot \frac{x-4}{4} =$$

$$\sqrt{6+\sqrt{32}} + \sqrt{6-\sqrt{32}} =$$

$$\sqrt{11-\sqrt{72}} + \sqrt{11+\sqrt{72}} =$$

$$\sqrt[3]{\sqrt{8}} =$$

$$\sqrt[3]{\sqrt{125}} =$$

$$\sqrt{3+\sqrt{5}} = \sqrt{a} + \sqrt{b} \Rightarrow a+b =$$

$$\sqrt{4+\sqrt{7}} = \sqrt{a} + \sqrt{b} \Rightarrow a+b =$$

$$\begin{aligned} a &= \sqrt{3} - 1 \\ b &= \sqrt{3} + 1 \Rightarrow \frac{a+b}{a-b} = \end{aligned}$$

$$\begin{aligned} a &= \sqrt{6} - \sqrt{3} \\ b &= \sqrt{6} + \sqrt{3} \Rightarrow \frac{a+b}{a-b} = \end{aligned}$$

$$\begin{aligned} x &= \sqrt{10} + \sqrt{5} \\ y &= \sqrt{10} - \sqrt{5} \Rightarrow \frac{x+y}{x-y} = \end{aligned}$$

$$\begin{aligned} x &= \sqrt{15} + \sqrt{5} \\ y &= \sqrt{15} - \sqrt{5} \Rightarrow \frac{x+y}{x-y} = \end{aligned}$$

$$\begin{aligned} a &= \sqrt{3} - 1 \\ b &= \sqrt{3} + 1 \Rightarrow \frac{a^2-b^2}{\sqrt{3}} = \end{aligned}$$

$$\begin{aligned} x &= \sqrt{5} - 2 \\ y &= \sqrt{5} + 2 \Rightarrow \frac{x^2-y^2}{\sqrt{5}} = \end{aligned}$$

$$a = 3\sqrt{5} - 5\sqrt{3} \Rightarrow \frac{\sqrt{3}-\sqrt{5}}{\sqrt{3}+\sqrt{5}} \text{ in } a \text{ ve } b$$

türünden yazılır.

iki sayıyı sırasıyla oranlayalım.

$$\frac{\sqrt{6} + \sqrt{10}}{\sqrt{15} + 5} =$$

$$\frac{\sqrt{14} + \sqrt{21}}{\sqrt{6} + 3} =$$

$$\frac{\sqrt{6} + \sqrt{2} - \sqrt{3} - 1}{\sqrt{3} + 1} =$$

$$\frac{\sqrt{39} + \sqrt{14} - \sqrt{5} - \sqrt{2}}{\sqrt{5} + \sqrt{2}} =$$

$$\frac{\sqrt{6} - 2 - \sqrt{3} + \sqrt{2}}{\sqrt{3} - \sqrt{2}} =$$

$$\frac{4(\sqrt{2} - 1)}{2 - \sqrt{2}} =$$

$$\frac{10(\sqrt{5} - 1)}{5 - \sqrt{5}} =$$

$$\frac{15(\sqrt{3} + 1)}{3 + \sqrt{3}} =$$

$$\frac{7 + 2\sqrt{7} + 1}{\sqrt{7} + 1} =$$

$$\frac{5 - 2\sqrt{5} + 1}{\sqrt{5} - 1} =$$

$$\frac{a + 2\sqrt{a} + 1}{\sqrt{a} + 1} =$$

$$\frac{b - 4\sqrt{b} + 4}{\sqrt{b} - 2} =$$

$$\sqrt{\frac{\sqrt{7} + \sqrt{6}}{\sqrt{7} - \sqrt{6}}} - \sqrt{\frac{\sqrt{7} - \sqrt{6}}{\sqrt{7} + \sqrt{6}}} =$$

$$a = \sqrt{x} - \sqrt{y} \Rightarrow a^2 + b^2 = 2x + 2y = 2(x+y)$$

$$a = \sqrt{5} - \sqrt{2} \Rightarrow a^2 + b^2 =$$

$$a = \sqrt{7} + \sqrt{3} \Rightarrow a^2 + b^2 =$$

$$a = \sqrt{5} - \sqrt{3} \Rightarrow a^2 + b^2 =$$

$$a = \sqrt{x} - \sqrt{y} \Rightarrow a^2 - b^2 = -4\sqrt{xy}$$

$$a = \sqrt{5} - \sqrt{3} \Rightarrow a^2 - b^2 =$$

$$a = \sqrt{3} + \sqrt{2} \Rightarrow a^2 - b^2 =$$

$$a = \sqrt{3} - \sqrt{2} \Rightarrow a^2 - b^2 =$$

$$2) \quad a = \sqrt{3} + \sqrt{2} \quad b = \sqrt{3} - \sqrt{2} \Rightarrow \frac{a}{b} + \frac{b}{a} =$$

$$a = \sqrt{3} - \sqrt{2} \quad b = \sqrt{3} + \sqrt{2} \Rightarrow \frac{a}{b} + \frac{b}{a} =$$

$$a = \sqrt{5} - 2 \quad b = \sqrt{5} + 2 \Rightarrow \frac{a}{b} - \frac{b}{a} =$$

$$a = \sqrt{3} + 1 \quad b = \sqrt{3} - 1 \Rightarrow \frac{a}{b} - \frac{b}{a} =$$

$$\frac{\sqrt{3} + \frac{1}{\sqrt{3}}}{\sqrt{3} - \frac{1}{\sqrt{3}}} =$$

sayı değeri verilir.
x ve y pozitif tam sayı

$$\frac{x}{3} = \frac{y}{5} = k$$

$$\sqrt{3x} + \sqrt{5y} =$$

$$\frac{x}{7} = \frac{y}{11} = k$$

$$\sqrt{7x} + \sqrt{11k} =$$

$$x = \sqrt{5} + 1 \Rightarrow x \cdot (x-1) \cdot (x-2) =$$

$$y = \sqrt{2} - 1 \Rightarrow y \cdot (y+1) \cdot (y+2) =$$

$$\frac{\sqrt{4^{2x+1}}}{6\sqrt{2^{6y+6x}}} = 64 \text{ ise } x-y =$$

$$A = \sqrt{3x-6} + \sqrt{6-3x} + 5x$$

ifadesi reel sayı ise A =

$$y = \sqrt{5x-10} + \sqrt{10-5x} + x$$

ifadesi reel sayı ise y =

$$\sqrt{4 - |x-2|}$$

ifadesi reel sayı olduğuna göre, x'in alabileceği kaç farklı tam sayı değeri vardır?

$$\sqrt{x-3y-2} + \sqrt{y-x+6} = 0 \Rightarrow x+y =$$

$$\sqrt{a-4b+1} + \sqrt{b-a-10} = 0 \Rightarrow a+b =$$

$$\sqrt{250 \cdot 252 + 1} =$$

$$\sqrt{471 \cdot 473 + 1} =$$

$$\sqrt{\frac{1}{16} + \frac{1}{25} - \frac{1}{10}} =$$

$$\frac{1}{\sqrt{7} + \sqrt{6} + 1} + \frac{1}{\sqrt{7} - \sqrt{6} - 1} =$$

$$\sqrt{\frac{1}{81} + \frac{1}{4} - \frac{1}{18}} =$$

$$\left(\sqrt[4]{2\sqrt{2}} \right)^x \text{ ifadesi tam sayı ise } x =$$

$$\frac{1}{\sqrt{6} + \sqrt{5} + 1} + \frac{1}{\sqrt{6} - \sqrt{5} - 1} =$$

$$\left(\sqrt[6]{5\sqrt{5}} \right)^x \text{ ifadesi tam sayı ise } x =$$

$$\left(\sqrt[7]{7\sqrt[3]{7}} \right)^x \text{ ifadesi tam sayı ise } x =$$

Kök içleri aynı sayıya bölünebilir.

$$\frac{\sqrt{96} + \sqrt{24}}{\sqrt{54}} \text{ hepsini 6'ya bölelim}$$

$$\sqrt[3]{a^2 \sqrt{a}} = 243 \text{ ise } a =$$

$$\frac{\sqrt{16} + \sqrt{4}}{\sqrt{9}} = \frac{4+2}{3} = \frac{6}{3} = 2$$

$$\sqrt[4]{a \sqrt{a}} = 64 \text{ ise } a =$$

$$\frac{\sqrt{45} + \sqrt{80}}{\sqrt{20}} =$$

$$\frac{\sqrt{9\sqrt{9}\sqrt{9}}}{\sqrt{3\sqrt{3}\sqrt{3}}} =$$

x yerine değer verelim.

$$\frac{\sqrt{72} + \sqrt{32}}{\sqrt{200}} =$$

$$\sqrt{x - \sqrt{x}} + \sqrt{x + \sqrt{x}} = \sqrt{2}$$

$$x = 1$$

$$3\sqrt{98} - 2\sqrt{72} = x\sqrt{18}$$

③

$$\frac{1}{5+\sqrt{6}} + \frac{1}{\sqrt{6}+\sqrt{5}} + \frac{x}{\sqrt{5}+1} = 5 \Rightarrow x =$$

$$(2^x)^7 = 4\sqrt{2} \Rightarrow x =$$

$$(5^x)^5 = 25\sqrt{5} \Rightarrow x =$$

$$\frac{1}{6+\sqrt{7}} + \frac{1}{\sqrt{7}+\sqrt{6}} + \frac{x}{\sqrt{6}+1} = 6 \Rightarrow x =$$

tüm sayıları 100 ile çarpalım.

$$\frac{\sqrt{0,49} + \sqrt{0,81} - \sqrt{1,44}}{0,1} =$$

$$\frac{12\sqrt{5} - 45\sqrt{3}}{2\sqrt{20} - 3\sqrt{75}} =$$

$$\frac{\sqrt{0,64} + \sqrt{1,69} - \sqrt{0,49}}{0,7} =$$

$$a^3 + b^3 = (a+b) \cdot (a^2 - ab + b^2)$$

$$(2 - \sqrt{2}a + a^2) \cdot (a + \sqrt{2}) = 2\sqrt{2} - 8$$

$$a^3 + (\sqrt{2})^3 = 2\sqrt{2} - 8$$

$$a^3 = -8$$

$$a = -2$$

$$\sqrt[5]{4^{x-1}} = 16 \Rightarrow x =$$

$$(3 - \sqrt{3}a + a^2) \cdot (a + \sqrt{3}) = 3\sqrt{3} - 27$$

$$\sqrt[4]{49^{x-2}} = 7 \Rightarrow x = ?$$

$$\frac{x}{49} = \frac{y}{36} = k$$

$$\sqrt[3]{16^{x-3}} = 256 \Rightarrow x = ?$$

$$\sqrt[3]{7x} - \sqrt[3]{6y} = 3$$

① KÖKLÜ SAYILAR

$$\sqrt[n]{a^k} = a^{\frac{k}{n}}$$

$$\sqrt{m^3} =$$

$$\sqrt[7]{3^4} =$$

$$\sqrt[16]{y^{15}} =$$

$$\sqrt[5]{3^{x-1}} = \sqrt[4]{9^{2-x}} \Rightarrow x = ?$$

$$\sqrt{5} : \text{karekök } 5$$

$$\sqrt[3]{2} : \text{küpkök } 2$$

$$\sqrt{x^2} = |x| \quad \begin{matrix} x \geq 0 & \sqrt{x^2} = x \\ x < 0 & \sqrt{x^2} = -x \end{matrix}$$

$$\sqrt{4^2} = 4$$

$$\sqrt{(-4)^2} = \sqrt{4^2}$$

$$\sqrt{(-4)^2} = -(-4) = 4$$

$$x < 3, \sqrt{x^2 - 6x + 9} = ?$$

$$x < 1, \sqrt{x^2 - 2x + 1} = ?$$

$$x < 0 < y \Rightarrow \sqrt{x^2} + \sqrt{y^2} - x - y = ?$$

$$x < 0 < y \Rightarrow \sqrt{x^2} - \sqrt{y^2} - x + y = ?$$

$$\sqrt{(-2)^2} + \sqrt[5]{(-3)^5} = ?$$

$$\sqrt{(-4)^2} + \sqrt[3]{(-3)^3} = ?$$

$$x < 0 \Rightarrow \sqrt[6]{(-x)^6} + \sqrt[7]{x^7} = ?$$

$$x < 0 < y \Rightarrow \frac{\sqrt{x^2 y} + \sqrt{x^2 y^3}}{x \sqrt{y}} = ?$$

$$\sqrt[n]{a^n} = a \quad (a > 0)$$

$$\sqrt{7^2} =$$

$$\sqrt{5^2} =$$

$$\sqrt{(-3)^2} =$$