

KAREKÖKLÜ SAYILAR (Çalışma Kâğıdı-2)

1. Aşağıdaki kareköklü sayıları $a\sqrt{b}$ şeklinde yazınız.

● $\sqrt{12} = \dots\dots\dots$

● $\sqrt{108} = \dots\dots\dots$

● $\sqrt{80} = \dots\dots\dots$

● $\sqrt{48} = \dots\dots\dots$

● $\sqrt{8} = \dots\dots\dots$

● $\sqrt{72} = \dots\dots\dots$

● $\sqrt{242} = \dots\dots\dots$

● $\sqrt{162} = \dots\dots\dots$

● $\sqrt{50} = \dots\dots\dots$

● $\sqrt{98} = \dots\dots\dots$

● $\sqrt{63} = \dots\dots\dots$

● $\sqrt{125} = \dots\dots\dots$

● $\sqrt{27} = \dots\dots\dots$

● $\sqrt{80} = \dots\dots\dots$

● $\sqrt{125} = \dots\dots\dots$

● $\sqrt{32} = \dots\dots\dots$

2. Aşağıda $a\sqrt{b}$ şeklinde verilen sayıların kat sayılarını kök içine alınız.

● $7\sqrt{2} = \dots\dots\dots$

● $3\sqrt{11} = \dots\dots\dots$

● $3\sqrt{7} = \dots\dots\dots$

● $2\sqrt{15} = \dots\dots\dots$

● $3\sqrt{7} = \dots\dots\dots$

● $4\sqrt{10} = \dots\dots\dots$

● $13\sqrt{2} = \dots\dots\dots$

● $5\sqrt{8} = \dots\dots\dots$

● $5\sqrt{6} = \dots\dots\dots$

● $8\sqrt{2} = \dots\dots\dots$

● $5\sqrt{5} = \dots\dots\dots$

● $3\sqrt{3} = \dots\dots\dots$

● $2\sqrt{5} = \dots\dots\dots$

● $4\sqrt{6} = \dots\dots\dots$

● $2\sqrt{20} = \dots\dots\dots$

● $10\sqrt{6} = \dots\dots\dots$

3. Aşağıdaki toplama ve çıkarma işlemlerini çözünüz.

✓ $3\sqrt{2} + 5\sqrt{2} = \dots\dots\dots$

✓ $\sqrt{75} - \sqrt{12} = \dots\dots\dots$

✓ $\sqrt{8} + \sqrt{8} + \sqrt{8} = \dots\dots\dots$

✓ $7\sqrt{3} + 5\sqrt{3} - \sqrt{3} = \dots\dots\dots$

✓ $\sqrt{48} - 2\sqrt{27} = \dots\dots\dots$

✓ $\sqrt{96} - \sqrt{54} + 5\sqrt{6} = \dots\dots\dots$

✓ $\sqrt{8} + \sqrt{32} = \dots\dots\dots$

✓ $\sqrt{12} - \sqrt{48} + \sqrt{3} + \sqrt{27} = \dots\dots\dots$

✓ $2\sqrt{3} + \sqrt{75} + \sqrt{300} = \dots\dots\dots$

✓ $\sqrt{12} + \sqrt{27} + \sqrt{3} = \dots\dots\dots$

✓ $2\sqrt{2} + \sqrt{8} + \sqrt{32} - \sqrt{128} = \dots\dots\dots$

✓ $\sqrt{128} - \sqrt{50} - \sqrt{8} = \dots\dots\dots$

4. Aşağıdaki çarpma işlemlerini yapınız.

⊗ $3\sqrt{2} \cdot \sqrt{3} = \dots\dots\dots$

⊗ $(-2\sqrt{5}) \cdot 6\sqrt{32} = \dots\dots\dots$

⊗ $3\sqrt{5} \cdot 2\sqrt{5} = \dots\dots\dots$

⊗ $5\sqrt{7} \cdot \sqrt{11} = \dots\dots\dots$

⊗ $(-3\sqrt{7}) \cdot (-7\sqrt{7}) = \dots\dots\dots$

⊗ $2\sqrt{6} \cdot 3\sqrt{5} = \dots\dots\dots$

⊗ $\sqrt{3} \cdot \sqrt{12} = \dots\dots\dots$

⊗ $2\sqrt{14} \cdot 4\sqrt{3} = \dots\dots\dots$

⊗ $2\sqrt{3} \cdot \sqrt{5} \cdot \sqrt{3} = \dots\dots\dots$

⊗ $\sqrt{2} \cdot \sqrt{8} = \dots\dots\dots$

⊗ $\sqrt{3} \cdot (\sqrt{3} - \sqrt{2}) = \dots\dots\dots$

⊗ $\sqrt{3} \cdot (\sqrt{2} - \sqrt{5}) = \dots\dots\dots$

5. Aşağıdaki rasyonel sayıların paydalarını karekökten kurtarın.

$$\text{⊘} \frac{2}{\sqrt{2}} = \dots\dots\dots$$

$$\text{⊘} \frac{6}{\sqrt{3}} = \dots\dots\dots$$

$$\text{⊘} \frac{1}{\sqrt{2}-1} = \dots\dots\dots$$

$$\text{⊘} \frac{44}{\sqrt{11}} = \dots\dots\dots$$

$$\text{⊘} \frac{1}{\sqrt{5}-2} = \dots\dots\dots$$

$$\text{⊘} \frac{2}{\sqrt{3}+1} = \dots\dots\dots$$

6. Aşağıdaki bölme işlemlerini yapınız.

$$\text{➡} \frac{\sqrt{40}}{\sqrt{10}} = \dots\dots\dots$$

$$\text{➡} \frac{\sqrt{\frac{1}{4} + \frac{1}{3}}}{\sqrt{35}} = \dots\dots\dots$$

$$\text{➡} \frac{\sqrt{48} - \sqrt{24}}{\sqrt{6}} = \dots\dots\dots$$

$$\text{➡} \frac{\sqrt{12}}{3\sqrt{3}} = \dots\dots\dots$$

$$\text{➡} \frac{\sqrt{8}}{\sqrt{2}} = \dots\dots\dots$$

$$\text{➡} \frac{2\sqrt{3} + \sqrt{2}}{\sqrt{2}} = \dots\dots\dots$$

$$\text{➡} \frac{2\sqrt{27}}{\sqrt{12}} = \dots\dots\dots$$

$$\text{➡} \frac{\sqrt{80} - \sqrt{45}}{\sqrt{5}} = \dots\dots\dots$$

$$\text{➡} \frac{\sqrt{55} + \sqrt{505}}{\sqrt{5}} = \dots\dots\dots$$

7. Aşağıdaki ondalık kesir içeren kareköklü sayıları hesaplayınız.

$$\text{☂} \sqrt{0,01} = \dots\dots\dots$$

$$\text{☂} \sqrt{0,48} = \dots\dots\dots$$

$$\text{☂} 4\sqrt{0,25} - 2\sqrt{2,25} = \dots\dots\dots$$

$$\text{☂} \sqrt{0,09} = \dots\dots\dots$$

$$\text{☂} \sqrt{3,6} = \dots\dots\dots$$

$$\text{☂} \sqrt{0,29 - \sqrt{0,14} - \sqrt{0,01}} = \dots\dots\dots$$

$$\text{☂} \sqrt{0,125} = \dots\dots\dots$$

$$\text{☂} \sqrt{1,21} + \sqrt{0,0016} = \dots\dots\dots$$

$$\text{☂} \sqrt{\frac{\sqrt{0,49} + \sqrt{0,81} - \sqrt{1,44}}{10}} = \dots\dots\dots$$

8. Aşağıdaki işlemlerin sonuçlarından irrasyonel olanların yanındaki kutuya "I", rasyonel olanların yanındaki kutuya "Q" harfini yazınız.

$$\square \sqrt{\frac{9}{4}}$$

$$\square \frac{2}{3 - (\sqrt{3})^2}$$

$$\square \sqrt{30} \cdot \sqrt{10}$$

$$\square \sqrt{1 - \frac{5}{9}}$$

$$\square \frac{\sqrt{28}}{\sqrt{7}}$$

$$\square \frac{15}{\sqrt{3}}$$

$$\square \sqrt{10} \cdot (\sqrt{5} - \sqrt{5})$$

$$\square 1, \bar{2}$$

$$\square \sqrt{196}$$

$$\square (\sqrt{5} + \sqrt{3})(\sqrt{5} - \sqrt{3})$$

$$\square \frac{\sqrt{3} \cdot \sqrt{2}}{\sqrt{24}}$$

$$\square \sqrt{2, \bar{7}}$$

$$\square 1 - \sqrt{2}$$

$$\square \sqrt{12} \cdot \sqrt{3}$$

$$\square (\sqrt{5})^3$$

$$\square \sqrt{0,9}$$