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Üslü Köklü Sayılar

Matematik 13

1. $\frac{2^{32} - 2^{31}}{2^{33}} = ?$

- A) $\frac{1}{2}$ B) $\frac{1}{4}$ C) $\frac{1}{8}$ D) $\frac{1}{16}$ E) $\frac{1}{32}$

2. $\frac{4 \cdot 10^{-5} + 0,02 \cdot 10^{-3}}{0,3 \cdot 10^{-4}} = ?$

- A) 1 B) 2 C) 3 D) 4 E) 5

3. $a = 2$
 $b = -2$
 $\left(\frac{a-b}{b-a}\right)^{(a-b)} = ?$

- A) -4 B) -2 C) -1 D) 1 E) 6

4. $2x = y$
 $x^y = 3^{36}$
 $x = ?$

- A) 3 B) 4 C) 6 D) 8 E) 9

5. $2^a \cdot 5^b = 100$
 $2^b \cdot 5^a = 1000$
 $a + b = ?$

- A) 3 B) 4 C) 5 D) 6 E) 8

6. $a = 2^9$
 $b = 3^6$
 $c = 125^2$

? > ? > ?

- A) $b > a > c$ B) $c > b > a$ C) $a > b > c$
D) $c > a > b$ E) $b > c > a$

7. $4^{x-1} = 8^{x+1}$
 $x = ?$

- A) -5 B) -4 C) -2 D) -1 E) 1

8. $\frac{\sqrt[3]{2} \cdot \sqrt{3}}{\sqrt[6]{12}} = ?$

- A) $\sqrt{3}$ B) $\sqrt[3]{3}$ C) $\sqrt[6]{3}$ D) $\sqrt[6]{6}$ E) $\sqrt[6]{2}$

9. $\frac{\sqrt{121} + \sqrt{8^2 + 6^2}}{\sqrt{42} \sqrt{63} \sqrt{6}} = ?$

- A) $\frac{1}{6}$ B) $\frac{1}{3}$ C) $\frac{11}{3}$ D) $\frac{21}{6}$ E) $\frac{\sqrt{21}}{3}$

10. $\frac{(\sqrt{3}-1)(\sqrt{3}+1)}{(\sqrt{5}-\sqrt{3})(\sqrt{5}+\sqrt{3})} = ?$

- A) -1 B) 1 C) -2 D) 2 E) $2(\sqrt{5}-\sqrt{3})$

11. $\sqrt{8+2\sqrt{15}} - \sqrt{8-2\sqrt{15}} = ?$

- A) $-\sqrt{3}$ B) $\sqrt{3}$ C) $-2\sqrt{3}$ D) $2\sqrt{3}$ E) $2\sqrt{5}$

15. $\frac{\sqrt{(2^{3/2}-1)(2^{3/2}+1)+1}}{\sqrt{8+2\sqrt{7}}} = ?$

- A) 1 B) 2 C) $\sqrt{2}$ D) $2\sqrt{7}$ E) $7\sqrt{2}$

12. $\frac{5}{\sqrt{7-\sqrt{24}}} = ?$

- A) $\sqrt{3}$ B) $\sqrt{6}$ C) $\sqrt{3}+1$
D) $\sqrt{6}-1$ E) $\sqrt{6}+1$

16. $\frac{\sqrt[3]{3} \cdot \sqrt{2}}{\sqrt[6]{6}} = ?$

- A) $\sqrt[6]{3}$ B) $\sqrt[3]{2}$ C) $\sqrt[6]{6}$ D) $\sqrt[6]{12}$ E) $\sqrt[3]{4}$

13. $a = \sqrt[3]{3}$
 $b = \sqrt{2}$
 $c = \sqrt[4]{5}$
 $? > ? > ?$

- A) $a > b > c$ B) $a > c > b$ C) $c > b > a$
D) $c > a > b$ E) $b > a > c$

17. $\left(\sqrt{\frac{3}{2}} + \sqrt{\frac{2}{3}}\right) \sqrt{24} = ?$

- A) 5 B) 7 C) 10 D) 16 E) 22

14. $\frac{2}{\sqrt{3}-1} + \frac{2}{\sqrt{3}+1} = ?$

- A) $\sqrt{3}$ B) $2\sqrt{3}$ C) $\sqrt{2}$
D) $3\sqrt{3}$ E) $2\sqrt{3}+2$

18. $\frac{1}{\sqrt{5}-\sqrt{3}} + \frac{1}{\sqrt{5}+\sqrt{3}} = ?$

- A) $\sqrt{3}$ B) $\sqrt{5}$ C) $2\sqrt{3}$ D) $2\sqrt{5}$ E) $\sqrt{10}$

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
B	B	D	E	C	B	A	B	A	B	D	E	D	B	A	D	C	B