O'quvchi 01 (7-A)

Variant: 1D747005 • Matematika • 7-A

1. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

2. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $\sqrt[3]{2}$ **B)** 1,5 **C)** 0,25 $\sqrt[3]{65}$ **D)** 1

3. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2\sqrt{7}$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $2\sqrt{14}$

4. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) cheksiz ko'p **B)** 1 **C)** 3 **D)** 27

5. bu yerda $[a]-asoniningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+[-\sqrt{22}]+\ldots+[-\sqrt{40}]$

A) −124 **B)** −50 **C)** −62 **D)** −105

6. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 4 **B)** 3 **C)** 2 **D)** 1

7. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) $\sqrt{30}$ **B)** 11 **C)** 1 **D)** 0

8. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt[3]{2}$
B) $\sqrt[6]{2}$
C) 2 O'quvchilarim mazza qilsin: 2-Variant
D) $\sqrt{2}$

9. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 3 **B)** 1 **C)** 0 **D)** 1

10. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) 0,5−0,25 $\sqrt{2}$ **B)** $\frac{1}{4-2\sqrt{2}}$ **C)** −4−2 $\sqrt{2}$ **D)** 4−2 $\sqrt{2}$

11. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}-\frac{1}{n+1}$
C) $1+\frac{1}{n}+\frac{1}{n+1}$
D) $1-\frac{1}{n}+\frac{1}{n+1}$

12. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 33 **B)** 11 **C)** 22 **D)** 44

13. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) 2 **B)** $\frac{\sqrt{2}}{2}$ **C)** $\frac{\sqrt{6}}{3}$ **D)** $\sqrt{2}$

14. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

A) $-2\sqrt{3}$ **B)** $2\sqrt{3}$ **C)** −2 **D)** 2

15. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6+ $\sqrt{3}$ **B)** 6 **C)** 3 **D)** 6 $\sqrt{3}$

16. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $4\sqrt{5}$ **B)** $6\sqrt{2}$ **C)** $-6\sqrt{2}$ **D)** $-4\sqrt{5}$

17. 4+2 $\sqrt{2}$ somiga teskari sonni toping.

A) 0,5−0,25 $\sqrt{2}$ **B)** 4−2 $\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** −4−2 $\sqrt{2}$

18. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-4\sqrt{5}$ **B)** $-6\sqrt{2}$ **C)** $4\sqrt{5}$ **D)** $6\sqrt{2}$

19. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=$?

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{10}$

20. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 5 **B)** 2 **C)** 3 **D)** 7

21. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 5 **B)** 8 **C)** 3 **D)** 4

22. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 5 **B)** 7 **C)** 3 **D)** 2

23. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 1 **B)** -1 **C)** 3 **D)** 0

24. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2-2a^2$ **B)** 2 **C)** $2a^2$ **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

25. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{16}+1$
B) $(\sqrt[3]{4}+1)^2$
C) $\sqrt[3]{4}$
D) $-(\sqrt[3]{4}+1)^2$

26. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1 **B)** $\sqrt[3]{2}$ **C)** 1,5 **D)** 0,25 $\sqrt[3]{65}$

27. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{3}$ **B)** $2\sqrt{2}$ **C)** $\sqrt{6}$ **D)** 2

28. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}-\frac{1}{n+1}$
C) $1-\frac{1}{n}+\frac{1}{n+1}$
D) $1+\frac{1}{n}+\frac{1}{n+1}$

29. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{(\frac{1}{24})^{-2}})$

A) −480 **B)** −120 **C)** −240 **D)** −60

30. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 2 **B)** $\sqrt{2}+1$ **C)** 1 **D)** $\sqrt{2}-1$

31. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 1 **C)** 4 **D)** 2

32. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{14}$
B) $2\sqrt{7}$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $-2(\sqrt{7}+2\sqrt{3})$

33. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 10 **B)** 12 **C)** $6\sqrt{3}$ **D)** $5-3\sqrt{3}$

34. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\sqrt{2}$ **B)** $\frac{\sqrt{6}}{3}$ **C)** 2 **D)** $\frac{\sqrt{2}}{2}$

35. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 10 **B)** 18 **C)** 20 **D)** 16

36. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 22 **B)** 44 **C)** 11 **D)** 33

37. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{16}+1$
B) $\sqrt[3]{4}$
C) $-(\sqrt[3]{4}+1)^2$
D) $(\sqrt[3]{4}+1)^2$

38. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** 2 **C)** 1 **D)** $\sqrt{2}-1$

39. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 1 **B)** $\sqrt{24}$ **C)** 2 **D)** 5

40. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})=?$

A) 5 **B)** 6 **C)** 4 **D)** 8

41. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 6 **B)** 7 **C)** 8 **D)** 9

42. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) $\sqrt{4}$ **B)** 1 **C)** 5 **D)** 25

43. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{10}$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+\sqrt{5}$
D) $\sqrt{2}+1$

44. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

45. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 2 **B)** 1 **C)** $\sqrt{24}$ **D)** 5

46. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6 **B)** $6\sqrt{3}$ **C)** 3 **D)** $6+\sqrt{3}$

47. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) $\sqrt{30}$ **B)** 1 **C)** 11 **D)** 0

48. bu yerda $[a]-asoniningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+[-\sqrt{22}]+\ldots+[-\sqrt{40}]$

A) −124 **B)** −62 **C)** −105 **D)** −50

49. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 8 **B)** 6 **C)** 9 **D)** 7

50. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $6\sqrt{3}$ **B)** $5-3\sqrt{3}$ **C)** 12 **D)** 10

51. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{(\frac{1}{24})^{-2}})$

A) −480 **B)** −120 **C)** −240 **D)** −60

52. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

A) −2 **B)** $-2\sqrt{3}$ **C)** 2 **D)** $2\sqrt{3}$

53. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

54. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{3}$ **B)** $2\sqrt{2}$ **C)** $\sqrt{6}$ **D)** 2

55. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** cheksiz ko'p **C)** 1 **D)** 3

56. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2-2a^2$ **B)** $2a^2$ **C)** 2 **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

57. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 4 **B)** 5 **C)** 8 **D)** 3

58. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 10 **C)** 20 **D)** 16

59. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 5 **B)** $\sqrt{4}$ **C)** 1 **D)** 25

60. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})=?$

A) 6 **B)** 8 **C)** 4 **D)** 5

O'quvchi 02 (7-A)

Variant: 705C1118 • Matematika • 7-A

1. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

2. x= n+ $\sqrt{n^2-16}$; $y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 5 **B)** 4 **C)** 3 **D)** 8

3. 4+2 $\sqrt{2}$ somiga teskari sonni toping.

A) $\frac{1}{4-2\sqrt{2}}$ **B)** $4-2\sqrt{2}$ **C)** $0{,}5-0{,}25\sqrt{2}$ **D)** $-4-2\sqrt{2}$

4. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}$ =?

A) $4\sqrt{5}$ **B)** $-4\sqrt{5}$ **C)** $6\sqrt{2}$ **D)** $-6\sqrt{2}$

5. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}-\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$

A) 2 **B)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **C)** $2a^2$ **D)** $2-2a^2$

6. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) -60 **B)** -480 **C)** -120 **D)** -240

7. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 1 **B)** 3 **C)** 4 **D)** 2

8. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

9. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2\ldots}}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}$ =?

A) 6 **B)** 8 **C)** 9 **D)** 7

10. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) -480 **B)** -60 **C)** -120 **D)** -240

11. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}-1$ **B)** $\sqrt{2}+1$ **C)** 2 **D)** 1

12. $\frac{\sqrt{0{,}5}}{\sqrt{2{,}4}}\bullet\left(\sqrt{\frac{1{,}2-0{,}7}{1{,}2+0{,}7}}+\sqrt{\frac{2{,}4+1{,}4}{2{,}4-1{,}4}}\right)\cdot\frac{\sqrt{1{,}5+0{,}4}}{\sqrt{0{,}9+1{,}5}}$ =?

A) 5 **B)** $\sqrt{24}$ **C)** 2 **D)** 1

13. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}$ =?

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{3}$

14. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{4}$
B) $\left(\sqrt[3]{4}+1\right)^2$
C) $-\left(\sqrt[3]{4}+1\right)^2$
D) $\sqrt[3]{16}+1$

15. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 44 **B)** 11 **C)** 22 **D)** 33

16. $\frac{\sqrt{0{,}5}}{\sqrt{2{,}4}}\bullet\left(\sqrt{\frac{1{,}2-0{,}7}{1{,}2+0{,}7}}+\sqrt{\frac{2{,}4+1{,}4}{2{,}4-1{,}4}}\right)\cdot\frac{\sqrt{1{,}5+0{,}4}}{\sqrt{0{,}9+1{,}5}}$ =?

A) 5 **B)** $\sqrt{24}$ **C)** 1 **D)** 2

17. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6+ $\sqrt{3}$ **B)** 3 **C)** 6 **D)** $6\sqrt{3}$

18. Hisoblang: $\sqrt{\frac{13-6\sqrt{4{,}(6)}}{3+6\sqrt{0{,}(22)}}}-\sqrt{\frac{13+6\sqrt{4{,}(6)}}{3-6\sqrt{0{,}(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2(2\sqrt{3}-\sqrt{7})$
C) $2\sqrt{14}$
D) $2\sqrt{7}$

19. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet\left(x^{\frac{1}{3}}-y^{\frac{1}{3}}\right)\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet\left(x^{\frac{1}{3}}+y^{\frac{1}{3}}\right)$ =?

A) 6 **B)** 8 **C)** 4 **D)** 5

20. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\sqrt{2}$ **B)** 2 **C)** $\frac{\sqrt{6}}{3}$ **D)** $\frac{\sqrt{2}}{2}$

21. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** $\sqrt{2}-1$ **C)** 1 **D)** 2

22. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}+\frac{1}{n+1}$
B) $1-\frac{1}{n}-\frac{1}{n+1}$
C) $1+\frac{1}{n}-\frac{1}{n+1}$
D) $1-\frac{1}{n}+\frac{1}{n+1}$

23. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -105 **B)** -50 **C)** -124 **D)** -62

24. A= $\sqrt{2}-\sqrt[3]{2}$, $B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt[6]{2}$
B) $\sqrt{2}$
C) 2 O'quvchilarim mazza qilsin: 2-Variant
D) $\sqrt[3]{2}$

25. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 5 **B)** 25 **C)** $\sqrt{4}$ **D)** 1

26. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 0 **B)** 3 **C)** 1 **D)** -1

27. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $0{,}25\sqrt[3]{65}$ **B)** 1 **C)** 1,5 **D)** $\sqrt[3]{2}$

28. Hisoblang: $\sqrt{\frac{13-6\sqrt{4{,}(6)}}{3+6\sqrt{0{,}(22)}}}-\sqrt{\frac{13+6\sqrt{4{,}(6)}}{3-6\sqrt{0{,}(22)}}}$

A) $2\sqrt{7}$
B) $2(2\sqrt{3}-\sqrt{7})$
C) $2\sqrt{14}$
D) $-2(\sqrt{7}+2\sqrt{3})$

29. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 10 **B)** $5-3\sqrt{3}$ **C)** $6\sqrt{3}$ **D)** 12

30. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 2 **B)** 3 **C)** 7 **D)** 5

31. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) 2 **B)** $\frac{\sqrt{2}}{2}$ **C)** $\sqrt{2}$ **D)** $\frac{\sqrt{6}}{3}$

32. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 20 **B)** 18 **C)** 16 **D)** 10

33. Hisoblang: $\frac{\sqrt{5-3\sqrt{2{,}(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2{,}(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** 2 **C)** $2\sqrt{2}$ **D)** $2\sqrt{3}$

34. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** 3 **C)** cheksiz ko'p **D)** 1

35. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{2}$ **B)** 2 **C)** $2\sqrt{3}$ **D)** $\sqrt{6}$

36. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 3 **B)** 0 **C)** 1 **D)** 1

37. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{10}$
B) $\sqrt{2}+\sqrt{5}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{3}$

38. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 4 **C)** 1 **D)** 2

39. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) $6\sqrt{3}$ **B)** 6+ $\sqrt{3}$ **C)** 3 **D)** 6

40. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 5 **B)** 6 **C)** 8 **D)** 4

41. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 10 **B)** 20 **C)** 18 **D)** 16

42. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** cheksiz ko'p **C)** 1 **D)** 3

43. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

44. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

45. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 1 **B)** $\sqrt{30}$ **C)** 11 **D)** 0

46. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

47. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 44 **B)** 22 **C)** 11 **D)** 33

48. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{4}$
B) $(\sqrt[3]{4}+1)^2$
C) $-(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{16}+1$

49. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 5 **C)** 8 **D)** 4

50. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}-\frac{1}{n+1}$
C) $1-\frac{1}{n}+\frac{1}{n+1}$
D) $1+\frac{1}{n}+\frac{1}{n+1}$

51. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2\ldots}}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 6 **B)** 7 **C)** 8 **D)** 9

52. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $4\sqrt{5}$ **B)** $-6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $6\sqrt{2}$

53. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -50 **B)** -105 **C)** -62 **D)** -124

54. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1 **B)** 0,25 $\sqrt[3]{65}$ **C)** 1,5 **D)** $\sqrt[3]{2}$

55. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) $\sqrt{4}$ **B)** 5 **C)** 25 **D)** 1

56. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 3 **B)** 7 **C)** 5 **D)** 2

57. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 1 **B)** $\sqrt{30}$ **C)** 11 **D)** 0

58. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) $4-2\sqrt{2}$ **B)** $-4-2\sqrt{2}$ **C)** $0{,}5-0{,}25\sqrt{2}$ **D)** $\frac{1}{4-2\sqrt{2}}$

59. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) 2 **B)** $2a^2$ **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** $2-2a^2$

60. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $6\sqrt{3}$ **B)** 12 **C)** $5-3\sqrt{3}$ **D)** 10

O'quvchi 03 (7-A)

Variant: 87FC45D0 • Matematika • 7-A

1. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) 2 **B)** $\sqrt{6}$ **C)** $2\sqrt{3}$ **D)** $2\sqrt{2}$

2. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** $6\sqrt{3}$ **C)** 6+ $\sqrt{3}$ **D)** 6

3. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

4. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 2 **B)** 4 **C)** 1 **D)** 3

5. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{2}}{2}$ **B)** $\sqrt{2}$ **C)** $\frac{\sqrt{6}}{3}$ **D)** 2

6. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 6 **B)** 8 **C)** 5 **D)** 4

7. $\sqrt{\frac{a^4+2a^3+2a^2+2a+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1-\frac{1}{n}-\frac{1}{n+1}$
C) $1+\frac{1}{n}+\frac{1}{n+1}$
D) $1-\frac{1}{n}+\frac{1}{n+1}$

8. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2(2\sqrt{3}-\sqrt{7})$
C) $2\sqrt{14}$
D) $2\sqrt{7}$

9. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) $6\sqrt{3}$ **B)** 6 **C)** 6+ $\sqrt{3}$ **D)** 3

10. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) −60 **B)** −480 **C)** −240 **D)** −120

11. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{7}$
B) $2(2\sqrt{3}-\sqrt{7})$
C) $-2(\sqrt{7}+2\sqrt{3})$
D) $2\sqrt{14}$

12. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $6\sqrt{2}$ **B)** $-6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $4\sqrt{5}$

13. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1,5 **B)** 1 **C)** $\sqrt[3]{2}$ **D)** 0,25 $\sqrt[3]{65}$

14. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}-1$ **B)** $\sqrt{2}+1$ **C)** 2 **D)** 1

15. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 5 **B)** 6 **C)** 4 **D)** 8

16. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}-\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $\sqrt{a^4+1}-\sqrt{a^4-1}$ **B)** $2a^2$ **C)** $2-2a^2$ **D)** 2

17. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 0 **B)** 1 **C)** $\sqrt{30}$ **D)** 11

18. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 3 **B)** 5 **C)** 7 **D)** 2

19. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) cheksiz ko'p **B)** 1 **C)** 27 **D)** 3

20. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) −124 **B)** −62 **C)** −105 **D)** −50

21. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{3}$

22. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1 **B)** $\sqrt[3]{2}$ **C)** 1,5 **D)** 0,25 $\sqrt[3]{65}$

23. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 7 **B)** 9 **C)** 8 **D)** 6

24. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{2}}{2}$ **B)** 2 **C)** $\sqrt{2}$ **D)** $\frac{\sqrt{6}}{3}$

25. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 2 **B)** $\sqrt{24}$ **C)** 5 **D)** 1

26. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{16}+1$
B) $-(\sqrt[3]{4}+1)^2$
C) $\sqrt[3]{4}$
D) $(\sqrt[3]{4}+1)^2$

27. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 4 **C)** 8 **D)** 5

28. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 0 **B)** 1 **C)** 1 **D)** 3

29. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 44 **B)** 11 **C)** 22 **D)** 33

30. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $-(\sqrt[3]{4}+1)^2$
B) $\sqrt[3]{16}+1$
C) $\sqrt[3]{4}$
D) $(\sqrt[3]{4}+1)^2$

31. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt[3]{2}$
B) 2 O'quvchilarim mazza qilsin: 2-Variant
C) $\sqrt[6]{2}$
D) $\sqrt{2}$

32. Hisodblang: $\sqrt{11} \bullet (\frac{1}{1+\sqrt{2}} + \frac{1}{\sqrt{2}+\sqrt{3}} + \ldots + \frac{1}{\sqrt{98}+\sqrt{99}} + 1)$

A) 11 **B)** 33 **C)** 22 **D)** 44

33. $\sqrt{22 - 30\sqrt{4 - 2\sqrt{3}}} + 5 + 3\sqrt{3}$

A) $5{-}3\sqrt{3}$ **B)** 12 **C)** 10 **D)** $6\sqrt{3}$

34. x= n+ $\sqrt{n^2-16}; y = n - \sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 8 **B)** 4 **C)** 5 **D)** 3

35. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 1 **B)** 3 **C)** 2 **D)** 4

36. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 5 **B)** 7 **C)** 2 **D)** 3

37. $4{+}2\sqrt{2}$ soniga teskari sonni toping.

A) $0{,}5{-}0{,}25\sqrt{2}$ **B)** $\frac{1}{4-2\sqrt{2}}$ **C)** $4{-}2\sqrt{2}$ **D)** $-4{-}2\sqrt{2}$

38. Hisoblang: $(5^{5\sqrt{5}} \bullet \sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 1 **B)** 5 **C)** 25 **D)** $\sqrt{4}$

39. Hisoblang: $(5^{5\sqrt{5}} \bullet \sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 5 **B)** 1 **C)** $\sqrt{4}$ **D)** 25

40. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2} - \sqrt{9x^2-12xy+4y^2} =$?

A) $4\sqrt{5}$ **B)** $-6\sqrt{2}$ **C)** $6\sqrt{2}$ **D)** $-4\sqrt{5}$

41. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}} : \frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

42. $4{+}2\sqrt{2}$ somiga teskari sonni toping.

A) $-4{-}2\sqrt{2}$ **B)** $\frac{1}{4-2\sqrt{2}}$ **C)** $0{,}5{-}0{,}25\sqrt{2}$ **D)** $4{-}2\sqrt{2}$

43. A= $\sqrt{2} - \sqrt[3]{2}, B = \sqrt[3]{2} + \sqrt[6]{2} + 1$ va $C = \sqrt{2} - 1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

44. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** $\sqrt{2}-1$ **C)** 2 **D)** $\sqrt{2}+1$

45. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}} = \sqrt[4]{a} + \sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 16 **B)** 20 **C)** 18 **D)** 10

46. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}} + \frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{3}$ **B)** 2 **C)** $\sqrt{6}$ **D)** $2\sqrt{2}$

47. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}} - \frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

48. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}} + \sqrt{30+\sqrt{30+\sqrt{30+\ldots}}} =?$

A) 8 **B)** 7 **C)** 9 **D)** 6

49. Hisoblang: $(\frac{10}{\sqrt{6}+1} + \frac{2}{\sqrt{6}-2} - \frac{6}{3-\sqrt{6}}) \bullet (\sqrt{96} + \sqrt{(\frac{1}{24})^{-2}})$

A) -480 **B)** -120 **C)** -240 **D)** -60

50. $\sqrt{8+2\sqrt{10+2\sqrt{5}}} + \sqrt{8-2\sqrt{10+2\sqrt{5}}} =?$

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+1$
C) $\sqrt{2}+\sqrt{10}$
D) $\sqrt{2}+\sqrt{3}$

51. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2} + 2$

A) 3 **B)** -1 **C)** 1 **D)** 0

52. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}} = \sqrt[4]{a} + \sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 20 **B)** 18 **C)** 10 **D)** 16

53. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1 - \frac{1}{n} + \frac{1}{n+1}$
B) $1 - \frac{1}{n} - \frac{1}{n+1}$
C) $1 + \frac{1}{n} + \frac{1}{n+1}$
D) $1 + \frac{1}{n} - \frac{1}{n+1}$

54. bu yerda $[a] - asonininingbutunqismi$ $[-\sqrt{20}] + [-\sqrt{21}] + [-\sqrt{22}] + \ldots + [-\sqrt{40}]$

A) -105 **B)** -62 **C)** -50 **D)** -124

55. $a = \pi - e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1} - -\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) 2 **B)** $\sqrt{a^4+1} - \sqrt{a^4-1}$ **C)** $2-2a^2$ **D)** $2a^2$

56. $\sqrt{22 - 30\sqrt{4-2\sqrt{3}}} + 5 + 3\sqrt{3}$

A) $6\sqrt{3}$ **B)** 10 **C)** 12 **D)** $5{-}3\sqrt{3}$

57. $\sqrt{\sqrt{241+44\sqrt{30}} - (\sqrt{6}-\sqrt{5})^{-1}}$

A) 11 **B)** 0 **C)** 1 **D)** $\sqrt{30}$

58. $x^2+y^2+z^2 = 6x+8y+10z-50$ bo'lsa, x ni toping.

A) 1 **B)** 3 **C)** cheksiz ko'p **D)** 27

59. $\frac{\sqrt{0,5}}{\sqrt{2,4}} \bullet (\sqrt{\frac{1,2-0,7}{1,2+0,7}} + \sqrt{\frac{2,4+1,4}{2,4-1,4}}) \cdot \frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}} =?$

A) 5 **B)** 2 **C)** $\sqrt{24}$ **D)** 1

60. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}} - \frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

O'quvchi 04 (7-A)

Variant: 54B20E7B • Matematika • 7-A

1. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{10}$

2. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -62 **B)** -124 **C)** -105 **D)** -50

3. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

4. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet\left(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}}\right)\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) $\sqrt{24}$ **B)** 1 **C)** 5 **D)** 2

5. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}--\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$

A) $2-2a^2$ **B)** $2a^2$ **C)** 2 **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

6. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** 2 **C)** $\sqrt{2}-1$ **D)** $\sqrt{2}+1$

7. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

8. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** 1 **C)** cheksiz ko'p **D)** 3

9. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6+ $\sqrt{3}$ **B)** 3 **C)** 6 **D)** $6\sqrt{3}$

10. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

11. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}+\frac{1}{n+1}$
B) $1+\frac{1}{n}-\frac{1}{n+1}$
C) $1-\frac{1}{n}-\frac{1}{n+1}$
D) $1+\frac{1}{n}+\frac{1}{n+1}$

12. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -62 **B)** -105 **C)** -124 **D)** -50

13. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

14. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1 **B)** $\sqrt[3]{2}$ **C)** $0,25\sqrt[3]{65}$ **D)** $1,5$

15. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) $\sqrt{4}$ **B)** 1 **C)** 25 **D)** 5

16. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 33 **B)** 11 **C)** 22 **D)** 44

17. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 1 **B)** 2 **C)** 4 **D)** 3

18. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 16 **C)** 10 **D)** 20

19. $\sqrt{\sqrt{241+44\sqrt{30}}}-\left(\sqrt{6}-\sqrt{5}\right)^{-1}$

A) 11 **B)** 1 **C)** 0 **D)** $\sqrt{30}$

20. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{3}$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{5}$

21. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{4}$
B) $-\left(\sqrt[3]{4}+1\right)^2$
C) $\left(\sqrt[3]{4}+1\right)^2$
D) $\sqrt[3]{16}+1$

22. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) -240 **B)** -60 **C)** -120 **D)** -480

23. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 5 **C)** 4 **D)** 8

24. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}--\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$

A) $\sqrt{a^4+1}-\sqrt{a^4-1}$ **B)** $2-2a^2$ **C)** $2a^2$ **D)** 2

25. Bunda x=8 va y= 2 $\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet\left(x^{\frac{1}{3}}-y^{\frac{1}{3}}\right)\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet\left(x^{\frac{1}{3}}+y^{\frac{1}{3}}\right)=?$

A) 5 **B)** 4 **C)** 8 **D)** 6

26. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 11 **B)** 33 **C)** 22 **D)** 44

27. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 5 **B)** 25 **C)** 1 **D)** $\sqrt{4}$

28. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2\ldots}}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 6 **B)** 8 **C)** 9 **D)** 7

29. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) -1 **B)** 1 **C)** 0 **D)** 3

30. 4+2 $\sqrt{2}$ somiga teskari sonni toping.

A) $0,5-0,25\sqrt{2}$ **B)** $-4-2\sqrt{2}$ **C)** $4-2\sqrt{2}$ **D)** $\frac{1}{4-2\sqrt{2}}$

31. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 3 **B)** 5 **C)** 7 **D)** 2

32. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}+\frac{1}{n+1}$
D) $1-\frac{1}{n}-\frac{1}{n+1}$

33. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 1 **B)** cheksiz ko'p **C)** 3 **D)** 27

34. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** $2\sqrt{3}$ **C)** $2\sqrt{2}$ **D)** 2

35. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) $\sqrt{30}$ **B)** 11 **C)** 0 **D)** 1

36. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) 4−2 $\sqrt{2}$ **B)** −4−2 $\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** 0,5−0,25 $\sqrt{2}$

37. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 7 **B)** 8 **C)** 9 **D)** 6

38. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $\sqrt[3]{2}$ **B)** 1 **C)** 1,5 **D)** 0,25 $\sqrt[3]{65}$

39. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $(\sqrt[3]{4}+1)^2$
B) $\sqrt[3]{16}+1$
C) $-(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{4}$

40. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{(\frac{1}{24})^{-2}})$

A) −480 **B)** −120 **C)** −60 **D)** −240

41. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

42. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 4 **C)** 2 **D)** 1

43. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 5 **C)** 8 **D)** 4

44. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6+ $\sqrt{3}$ **B)** 3 **C)** 6 $\sqrt{3}$ **D)** 6

45. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) 2 $\sqrt{2}$ **B)** 2 **C)** 2 $\sqrt{3}$ **D)** $\sqrt{6}$

46. Bunda x=8 va y= 2 $\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 6 **B)** 8 **C)** 4 **D)** 5

47. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 2 **B)** 3 **C)** 5 **D)** 7

48. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) 2 **B)** $\frac{\sqrt{6}}{3}$ **C)** $\sqrt{2}$ **D)** $\frac{\sqrt{2}}{2}$

49. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $6\sqrt{2}$ **B)** $-4\sqrt{5}$ **C)** $4\sqrt{5}$ **D)** $-6\sqrt{2}$

50. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 5−3 $\sqrt{3}$ **B)** 10 **C)** 12 **D)** $6\sqrt{3}$

51. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 10 **C)** 16 **D)** 20

52. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 5−3 $\sqrt{3}$ **B)** $6\sqrt{3}$ **C)** 12 **D)** 10

53. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{2}}{2}$ **B)** $\sqrt{2}$ **C)** $\frac{\sqrt{6}}{3}$ **D)** 2

54. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2(2\sqrt{3}-\sqrt{7})$
B) $2\sqrt{14}$
C) $-2(\sqrt{7}+2\sqrt{3})$
D) $2\sqrt{7}$

55. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt{2}$
B) 2 O'quvchilarim mazza qilsin: 2-Variant
C) $\sqrt[6]{2}$
D) $\sqrt[3]{2}$

56. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 1 **B)** 0 **C)** 3 **D)** 1

57. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) 5 **B)** $\sqrt{24}$ **C)** 2 **D)** 1

58. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2(2\sqrt{3}-\sqrt{7})$
C) $2\sqrt{7}$
D) $2\sqrt{14}$

59. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}-1$ **B)** 1 **C)** 2 **D)** $\sqrt{2}+1$

60. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-6\sqrt{2}$ **B)** $-4\sqrt{5}$ **C)** $6\sqrt{2}$ **D)** $4\sqrt{5}$

O'quvchi 05 (7-A)

Variant: A076C8E4 • Matematika • 7-A

1. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}+\frac{1}{n+1}$
B) $1-\frac{1}{n}-\frac{1}{n+1}$
C) $1-\frac{1}{n}+\frac{1}{n+1}$
D) $1+\frac{1}{n}-\frac{1}{n+1}$

2. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 12 **B)** 10 **C)** $5-3\sqrt{3}$ **D)** $6\sqrt{3}$

3. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}-\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) 2 **B)** $2a^2$ **C)** $2-2a^2$ **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

4. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -62 **B)** -50 **C)** -124 **D)** -105

5. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** cheksiz ko'p **C)** 3 **D)** 1

6. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

7. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) 2 O'quvchilarim mazza qilsin: 2-Variant
B) $\sqrt[6]{2}$
C) $\sqrt{2}$
D) $\sqrt[3]{2}$

8. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 5 **B)** 25 **C)** 1 **D)** $\sqrt{4}$

9. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{6}}{3}$ **B)** $\sqrt{2}$ **C)** 2 **D)** $\frac{\sqrt{2}}{2}$

10. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{6}}{3}$ **B)** $\frac{\sqrt{2}}{2}$ **C)** $\sqrt{2}$ **D)** 2

11. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{7}$
B) $2\sqrt{14}$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $-2(\sqrt{7}+2\sqrt{3})$

12. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) $6\sqrt{3}$ **B)** $6+\sqrt{3}$ **C)** 3 **D)** 6

13. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $6\sqrt{2}$ **B)** $-6\sqrt{2}$ **C)** $4\sqrt{5}$ **D)** $-4\sqrt{5}$

14. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) 2 **B)** $2\sqrt{3}$ **C)** $2\sqrt{2}$ **D)** $\sqrt{6}$

15. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** 1 **C)** $\sqrt{2}-1$ **D)** 2

16. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 1 **B)** 2 **C)** 4 **D)** 3

17. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** 6 **C)** $6+\sqrt{3}$ **D)** $6\sqrt{3}$

18. $4+2\sqrt{2}$ soniga teskari sonni toping.

A) $0{,}5-0{,}25\sqrt{2}$ **B)** $\frac{1}{4-2\sqrt{2}}$ **C)** $-4-2\sqrt{2}$ **D)** $4-2\sqrt{2}$

19. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

20. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $-\left(\sqrt[3]{4}+1\right)^2$
B) $\sqrt[3]{16}+1$
C) $\sqrt[3]{4}$
D) $\left(\sqrt[3]{4}+1\right)^2$

21. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 22 **B)** 33 **C)** 11 **D)** 44

22. $4+2\sqrt{2}$ somiga teskari sonni toping.

A) $4-2\sqrt{2}$ **B)** $0{,}5-0{,}25\sqrt{2}$ **C)** $-4-2\sqrt{2}$ **D)** $\frac{1}{4-2\sqrt{2}}$

23. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1 **B)** $\sqrt[3]{2}$ **C)** $0{,}25\sqrt[3]{65}$ **D)** 1,5

24. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) -240 **B)** -60 **C)** -120 **D)** -480

25. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 7 **B)** 2 **C)** 5 **D)** 3

26. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\left(\sqrt[3]{4}+1\right)^2$
B) $\sqrt[3]{4}$
C) $-\left(\sqrt[3]{4}+1\right)^2$
D) $\sqrt[3]{16}+1$

27. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}-\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2a^2$ **B)** $2-2a^2$ **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** 2

28. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $6\sqrt{3}$ **B)** 12 **C)** 10 **D)** $5-3\sqrt{3}$

29. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{10}$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{5}$

30. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** 3 **C)** 1 **D)** cheksiz ko'p

31. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** $\sqrt{2}-1$ **C)** 1 **D)** 2

32. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 22 **B)** 44 **C)** 33 **D)** 11

33. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 1 **C)** 2 **D)** 4

34. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{14}$
B) $2\sqrt{7}$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $-2(\sqrt{7}+2\sqrt{3})$

35. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

36. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{10}$
B) $\sqrt{2}+1$
C) $\sqrt{2}+\sqrt{3}$
D) $\sqrt{2}+\sqrt{5}$

37. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 5 **C)** 4 **D)** 8

38. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 20 **B)** 18 **C)** 10 **D)** 16

39. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 3 **B)** -1 **C)** 0 **D)** 1

40. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** $2\sqrt{2}$ **C)** $2\sqrt{3}$ **D)** 2

41. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})^{-1}}$

A) 11 **B)** 1 **C)** 0 **D)** $\sqrt{30}$

42. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\dots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\dots}}}=?$

A) 7 **B)** 8 **C)** 6 **D)** 9

43. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 5 **B)** $\sqrt{24}$ **C)** 2 **D)** 1

44. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 16 **C)** 10 **D)** 20

45. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 0 **B)** 1 **C)** 3 **D)** 1

46. bu yerda $[a]-asonin ingbutun qismi$ $[-\sqrt{20}]+[-\sqrt{21}]+[-\sqrt{22}]+\dots+[-\sqrt{40}]$

A) -50 **B)** -105 **C)** -62 **D)** -124

47. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})^{-1}}$

A) 1 **B)** 0 **C)** $\sqrt{30}$ **D)** 11

48. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 5 **B)** 1 **C)** 2 **D)** $\sqrt{24}$

49. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})=?$

A) 6 **B)** 8 **C)** 4 **D)** 5

50. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{(\frac{1}{24})^{-2}})$

A) -120 **B)** -480 **C)** -240 **D)** -60

51. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\dots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 5 **B)** 2 **C)** 7 **D)** 3

52. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1,5 **B)** $0,25\sqrt[3]{65}$ **C)** $\sqrt[3]{2}$ **D)** 1

53. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}+\frac{1}{n+1}$
B) $1-\frac{1}{n}-\frac{1}{n+1}$
C) $1+\frac{1}{n}-\frac{1}{n+1}$
D) $1+\frac{1}{n}+\frac{1}{n+1}$

54. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

55. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})=?$

A) 4 **B)** 5 **C)** 6 **D)** 8

56. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 5 **B)** 8 **C)** 3 **D)** 4

57. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\dots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\dots}}}=?$

A) 7 **B)** 9 **C)** 6 **D)** 8

58. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $4\sqrt{5}$ **B)** $-4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $6\sqrt{2}$

59. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

60. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 5 **B)** 1 **C)** 25 **D)** $\sqrt{4}$

O'quvchi 06 (7-A)

Variant: 6983E950 • Matematika • 7-A

1. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{16}+1$
B) $\sqrt[3]{4}$
C) $-(\sqrt[3]{4}+1)^2$
D) $(\sqrt[3]{4}+1)^2$

2. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}-\frac{1}{n+1}$
D) $1-\frac{1}{n}+\frac{1}{n+1}$

3. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 2 **B)** 1 **C)** $\sqrt{24}$ **D)** 5

4. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\dots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\dots}}}=?$

A) 9 **B)** 7 **C)** 8 **D)** 6

5. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\dots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\dots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}-1$ **B)** 2 **C)** 1 **D)** $\sqrt{2}+1$

6. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}+\frac{1}{n+1}$
B) $1-\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}-\frac{1}{n+1}$
D) $1+\frac{1}{n}-\frac{1}{n+1}$

7. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\dots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 7 **B)** 2 **C)** 5 **D)** 3

8. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+1$
C) $\sqrt{2}+\sqrt{10}$
D) $\sqrt{2}+\sqrt{3}$

9. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\dots+\left[-\sqrt{40}\right]$

A) -62 **B)** -50 **C)** -124 **D)** -105

10. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{6}}{3}$ **B)** $\frac{\sqrt{2}}{2}$ **C)** $\sqrt{2}$ **D)** 2

11. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 16 **B)** 18 **C)** 20 **D)** 10

12. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{3}$ **B)** $\sqrt{6}$ **C)** 2 **D)** $2\sqrt{2}$

13. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 3 **B)** -1 **C)** 0 **D)** 1

14. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}-\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$

A) $2a^2$ **B)** 2 **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** $2-2a^2$

15. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) -120 **B)** -60 **C)** -480 **D)** -240

16. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\dots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 22 **B)** 44 **C)** 11 **D)** 33

17. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

18. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 2 **C)** 1 **D)** 4

19. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\dots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\dots}}}=?$

A) 6 **B)** 7 **C)** 8 **D)** 9

20. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** cheksiz ko'p **C)** 3 **D)** 1

21. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})=?$

A) 5 **B)** 8 **C)** 6 **D)** 4

22. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 4 **C)** 5 **D)** 8

23. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\dots+\left[-\sqrt{40}\right]$

A) -62 **B)** -50 **C)** -124 **D)** -105

24. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+1$
C) $\sqrt{2}+\sqrt{3}$
D) $\sqrt{2}+\sqrt{10}$

25. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $4\sqrt{5}$ **B)** $6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $-6\sqrt{2}$

26. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

27. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1 **B)** $0,25\sqrt[3]{65}$ **C)** $\sqrt[3]{2}$ **D)** 1,5

28. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) $-4-2\sqrt{2}$ **B)** $\frac{1}{4-2\sqrt{2}}$ **C)** $0,5-0,25\sqrt{2}$ **D)** $4-2\sqrt{2}$

29. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 4 **B)** 1 **C)** 3 **D)** 2

30. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 12 **B)** $6\sqrt{3}$ **C)** 10 **D)** $5-3\sqrt{3}$

31. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 20 **C)** 10 **D)** 16

32. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** 6 **C)** $6\sqrt{3}$ **D)** $6+\sqrt{3}$

33. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $6\sqrt{2}$ **B)** $4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $-4\sqrt{5}$

34. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) -480 **B)** -120 **C)** -60 **D)** -240

35. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

36. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) 2 O'quvchilarim mazza qilsin: 2-Variant
B) $\sqrt[3]{2}$
C) $\sqrt{2}$
D) $\sqrt[6]{2}$

37. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet\left(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}}\right)\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) $\sqrt{24}$ **B)** 1 **C)** 2 **D)** 5

38. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}-\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$

A) $2-2a^2$ **B)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **C)** 2 **D)** $2a^2$

39. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

40. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 33 **B)** 22 **C)** 11 **D)** 44

41. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 3 **B)** 1 **C)** 1 **D)** 0

42. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

43. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 5 **B)** 8 **C)** 3 **D)** 4

44. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})^{-1}}$

A) 1 **B)** $\sqrt{30}$ **C)** 11 **D)** 0

45. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 3 **B)** 27 **C)** 1 **D)** cheksiz ko'p

46. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{14}$
B) $2(2\sqrt{3}-\sqrt{7})$
C) $2\sqrt{7}$
D) $-2(\sqrt{7}+2\sqrt{3})$

47. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** $2\sqrt{2}$ **C)** 2 **D)** $2\sqrt{3}$

48. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $-\left(\sqrt[3]{4}+1\right)^2$
B) $\sqrt[3]{4}$
C) $\left(\sqrt[3]{4}+1\right)^2$
D) $\sqrt[3]{16}+1$

49. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{2}}{2}$ **B)** 2 **C)** $\sqrt{2}$ **D)** $\frac{\sqrt{6}}{3}$

50. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $0,25\sqrt[3]{65}$ **B)** $\sqrt[3]{2}$ **C)** 1 **D)** 1,5

51. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 25 **B)** 5 **C)** $\sqrt{4}$ **D)** 1

52. 4+2 $\sqrt{2}$ somiga teskari sonni toping.

A) $-4-2\sqrt{2}$ **B)** $4-2\sqrt{2}$ **C)** $0,5-0,25\sqrt{2}$ **D)** $\frac{1}{4-2\sqrt{2}}$

53. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2(2\sqrt{3}-\sqrt{7})$
B) $-2(\sqrt{7}+2\sqrt{3})$
C) $2\sqrt{14}$
D) $2\sqrt{7}$

54. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})^{-1}}$

A) 1 **B)** 0 **C)** 11 **D)** $\sqrt{30}$

55. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6 **B)** 6+ $\sqrt{3}$ **C)** 3 **D)** $6\sqrt{3}$

56. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) $\sqrt{4}$ **B)** 25 **C)** 1 **D)** 5

57. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 3 **B)** 5 **C)** 7 **D)** 2

58. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet\left(x^{\frac{1}{3}}-y^{\frac{1}{3}}\right)\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet$ $\left(x^{\frac{1}{3}}+y^{\frac{1}{3}}\right)$ =?

A) 8 **B)** 4 **C)** 6 **D)** 5

59. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 2 **B)** $\sqrt{2}-1$ **C)** 1 **D)** $\sqrt{2}+1$

60. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $6\sqrt{3}$ **B)** $5-3\sqrt{3}$ **C)** 10 **D)** 12

O'quvchi 07 (7-A)

Variant: CC789F98 • Matematika • 7-A

1. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 1 **C)** 4 **D)** 2

2. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** $2\sqrt{3}$ **C)** 2 **D)** $2\sqrt{2}$

3. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 1 **B)** 0 **C)** -1 **D)** 3

4. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) $\frac{1}{4-2\sqrt{2}}$ **B)** $-4-2\sqrt{2}$ **C)** $0{,}5-0{,}25\sqrt{2}$ **D)** $4-2\sqrt{2}$

5. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}--\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$

A) $2a^2$ **B)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **C)** $2-2a^2$ **D)** 2

6. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 3 **B)** 5 **C)** 7 **D)** 2

7. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}$ =?

A) $\sqrt{2}+\sqrt{3}$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+\sqrt{5}$
D) $\sqrt{2}+1$

8. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

9. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}$ =?

A) $4\sqrt{5}$ **B)** $-4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $6\sqrt{2}$

10. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 5 **B)** 3 **C)** 8 **D)** 4

11. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $5-3\sqrt{3}$ **B)** $6\sqrt{3}$ **C)** 12 **D)** 10

12. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 3 **B)** 1 **C)** cheksiz ko'p **D)** 27

13. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6+ $\sqrt{3}$ **B)** 6 **C)** $6\sqrt{3}$ **D)** 3

14. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1 **B)** 1,5 **C)** $\sqrt[3]{2}$ **D)** $0{,}25\sqrt[3]{65}$

15. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 20 **C)** 10 **D)** 16

16. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet\left(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}}\right)\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) 1 **B)** $\sqrt{24}$ **C)** 2 **D)** 5

17. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}-\frac{1}{n+1}$
B) $1-\frac{1}{n}+\frac{1}{n+1}$
C) $1+\frac{1}{n}+\frac{1}{n+1}$
D) $1+\frac{1}{n}-\frac{1}{n+1}$

18. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{2}$ **B)** $\sqrt{6}$ **C)** 2 **D)** $2\sqrt{3}$

19. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 11 **B)** $\sqrt{30}$ **C)** 1 **D)** 0

20. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) 2 **B)** $\frac{\sqrt{6}}{3}$ **C)** $\frac{\sqrt{2}}{2}$ **D)** $\sqrt{2}$

21. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet\left(x^{\frac{1}{3}}-y^{\frac{1}{3}}\right)\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet$ $\left(x^{\frac{1}{3}}+y^{\frac{1}{3}}\right)$ =?

A) 6 **B)** 4 **C)** 5 **D)** 8

22. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 1 **B)** 1 **C)** 0 **D)** 3

23. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

24. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2(2\sqrt{3}-\sqrt{7})$
B) $2\sqrt{14}$
C) $-2(\sqrt{7}+2\sqrt{3})$
D) $2\sqrt{7}$

25. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 3 **B)** 27 **C)** 1 **D)** cheksiz ko'p

26. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}--\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$

A) $\sqrt{a^4+1}-\sqrt{a^4-1}$ **B)** 2 **C)** $2a^2$ **D)** $2-2a^2$

27. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 11 **B)** 33 **C)** 44 **D)** 22

28. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 4 **C)** 8 **D)** 5

29. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) -120 **B)** -60 **C)** -480 **D)** -240

30. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet\left(x^{\frac{1}{3}}-y^{\frac{1}{3}}\right)\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet$ $\left(x^{\frac{1}{3}}+y^{\frac{1}{3}}\right)$ =?

A) 5 **B)** 6 **C)** 4 **D)** 8

31. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2(2\sqrt{3}-\sqrt{7})$
C) $2\sqrt{14}$
D) $2\sqrt{7}$

32. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}+\frac{1}{n+1}$
B) $1+\frac{1}{n}-\frac{1}{n+1}$
C) $1+\frac{1}{n}+\frac{1}{n+1}$
D) $1-\frac{1}{n}-\frac{1}{n+1}$

33. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $0{,}25\sqrt[3]{65}$ **B)** $\sqrt[3]{2}$ **C)** 1,5 **D)** 1

34. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $5-3\sqrt{3}$ **B)** 10 **C)** $6\sqrt{3}$ **D)** 12

35. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

36. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

37. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** $\sqrt{2}-1$ **C)** 1 **D)** 2

38. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 9 **B)** 6 **C)** 8 **D)** 7

39. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 6 **B)** 7 **C)** 8 **D)** 9

40. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

41. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 7 **B)** 5 **C)** 3 **D)** 2

42. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{3}$
B) $\sqrt{2}+\sqrt{5}$
C) $\sqrt{2}+\sqrt{10}$
D) $\sqrt{2}+1$

43. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt{2}$
B) $\sqrt[3]{2}$
C) 2 O'quvchilarim mazza qilsin: 2-Variant
D) $\sqrt[6]{2}$

44. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 4 **B)** 3 **C)** 2 **D)** 1

45. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 1 **B)** 25 **C)** 5 **D)** $\sqrt{4}$

46. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** 2 **C)** $\sqrt{2}-1$ **D)** $\sqrt{2}+1$

47. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $(\sqrt[3]{4}+1)^2$
B) $\sqrt[3]{16}+1$
C) $\sqrt[3]{4}$
D) $-(\sqrt[3]{4}+1)^2$

48. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $(\sqrt[3]{4}+1)^2$
B) $-(\sqrt[3]{4}+1)^2$
C) $\sqrt[3]{16}+1$
D) $\sqrt[3]{4}$

49. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{(\frac{1}{24})^{-2}})$

A) -240 **B)** -480 **C)** -60 **D)** -120

50. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{2}}{2}$ **B)** $\sqrt{2}$ **C)** $\frac{\sqrt{6}}{3}$ **D)** 2

51. bu yerda $[a]-asoniningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+[-\sqrt{22}]+\ldots+[-\sqrt{40}]$

A) -50 **B)** -105 **C)** -124 **D)** -62

52. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 2 **B)** 5 **C)** $\sqrt{24}$ **D)** 1

53. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 33 **B)** 44 **C)** 22 **D)** 11

54. 4+2 $\sqrt{2}$ somiga teskari sonni toping.

A) $-4-2\sqrt{2}$ **B)** $0,5-0,25\sqrt{2}$ **C)** $4-2\sqrt{2}$ **D)** $\frac{1}{4-2\sqrt{2}}$

55. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 10 **C)** 20 **D)** 16

56. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 11 **B)** 0 **C)** $\sqrt{30}$ **D)** 1

57. bu yerda $[a]-asoniningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+[-\sqrt{22}]+\ldots+[-\sqrt{40}]$

A) -50 **B)** -124 **C)** -62 **D)** -105

58. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6+ $\sqrt{3}$ **B)** 3 **C)** 6 **D)** $6\sqrt{3}$

59. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-6\sqrt{2}$ **B)** $6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $4\sqrt{5}$

60. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 1 **B)** $\sqrt{4}$ **C)** 25 **D)** 5

O'quvchi 08 (7-A)

Variant: 0E0C2542 • Matematika • 7-A

1. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -62 **B)** -105 **C)** -50 **D)** -124

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

A) $\frac{\sqrt{2}}{2}$ **B)** 2 **C)** $\frac{\sqrt{6}}{3}$ **D)** $\sqrt{2}$

3. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) cheksiz ko'p **B)** 1 **C)** 3 **D)** 27

4. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $6\sqrt{3}$ **B)** 10 **C)** $5-3\sqrt{3}$ **D)** 12

5. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}+\frac{1}{n+1}$
D) $1-\frac{1}{n}-\frac{1}{n+1}$

6. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2\sqrt{14}$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $2\sqrt{7}$

7. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2\ldots}}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 9 **B)** 8 **C)** 7 **D)** 6

8. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}-1$ **B)** 2 **C)** 1 **D)** $\sqrt{2}+1$

9. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt{2}$
B) $\sqrt[6]{2}$
C) $\sqrt[3]{2}$
D) 2 O'quvchilarim mazza qilsin: 2-Variant

10. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{16}+1$
B) $\sqrt[3]{4}$
C) $(\sqrt[3]{4}+1)^2$
D) $-(\sqrt[3]{4}+1)^2$

11. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 4 **B)** 3 **C)** 1 **D)** 2

12. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 1 **B)** 0 **C)** $\sqrt{30}$ **D)** 11

13. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet\left(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}}\right)\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) $\sqrt{24}$ **B)** 5 **C)** 2 **D)** 1

14. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

15. Bunda x=8 va y= $2\sqrt{2}\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 5 **B)** 8 **C)** 6 **D)** 4

16. $\frac{2+\sqrt{3}}{\sqrt{2+\sqrt{2+\sqrt{3}}}}+\frac{2-\sqrt{3}}{\sqrt{2-\sqrt{2-\sqrt{3}}}}=$

A) $\sqrt{2}$ **B)** 2 **C)** $\frac{\sqrt{2}}{2}$ **D)** $\frac{\sqrt{6}}{3}$

17. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

18. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

19. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $0,25\sqrt[3]{65}$ **B)** $1,5$ **C)** $\sqrt[3]{2}$ **D)** 1

20. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2\ldots}}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 7 **B)** 6 **C)** 8 **D)** 9

21. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 5 **B)** 3 **C)** 2 **D)** 7

22. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** 6 **C)** $6+\sqrt{3}$ **D)** $6\sqrt{3}$

23. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 2 **B)** 4 **C)** 3 **D)** 1

24. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}+\frac{1}{n+1}$
D) $1+\frac{1}{n}-\frac{1}{n+1}$

25. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) -60 **B)** -480 **C)** -240 **D)** -120

26. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $5-3\sqrt{3}$ **B)** 12 **C)** $6\sqrt{3}$ **D)** 10

27. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 20 **B)** 16 **C)** 18 **D)** 10

28. $4+2\sqrt{2}$ soniga teskari sonni toping.

A) $4-2\sqrt{2}$ **B)** $-4-2\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** $0,5-0,25\sqrt{2}$

29. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** 2 **C)** $\sqrt{2}+1$ **D)** $\sqrt{2}-1$

30. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 0 **B)** $\sqrt{30}$ **C)** 1 **D)** 11

31. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

32. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{10}$

33. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** $2\sqrt{2}$ **C)** $2\sqrt{3}$ **D)** 2

34. $\frac{\sqrt{0,5}}{\sqrt{2,4}} \bullet (\sqrt{\frac{1,2-0,7}{1,2+0,7}} + \sqrt{\frac{2,4+1,4}{2,4-1,4}}) \cdot \frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) 5 **B)** $\sqrt{24}$ **C)** 1 **D)** 2

35. bu yerda $[a] - asoniningbutunqismi$ $[-\sqrt{20}] + [-\sqrt{21}] + [-\sqrt{22}] + \ldots + [-\sqrt{40}]$

A) -105 **B)** -62 **C)** -50 **D)** -124

36. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2} + 2$

A) 3 **B)** 1 **C)** 1 **D)** 0

37. $a = \pi - e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1} - -\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2-2a^2$ **B)** $\sqrt{a^4+1} - \sqrt{a^4-1}$ **C)** $2a^2$ **D)** 2

38. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}} = \sqrt[4]{a} + \sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 20 **B)** 18 **C)** 10 **D)** 16

39. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2} - \sqrt{9x^2-12xy+4y^2} =$?

A) $6\sqrt{2}$ **B)** $4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $-4\sqrt{5}$

40. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 7 **B)** 3 **C)** 2 **D)** 5

41. Bunda x=8 va y= 2 $\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}} - y^{\frac{1}{3}}) \bullet \frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}} + y^{\frac{1}{3}})$ =?

A) 5 **B)** 6 **C)** 4 **D)** 8

42. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}} - \sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{7}$
B) $-2(\sqrt{7}+2\sqrt{3})$
C) $2\sqrt{14}$
D) $2(2\sqrt{3}-\sqrt{7})$

43. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2} - \sqrt{9x^2-12xy+4y^2} =$?

A) $-6\sqrt{2}$ **B)** $6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $4\sqrt{5}$

44. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}} : \frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

45. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a} + \sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** 6 **C)** $6\sqrt{3}$ **D)** 6+ $\sqrt{3}$

46. $x^2+y^2+z^2 = 6x+8y+10z-50$ bo'lsa, x ni toping.

A) 3 **B)** 27 **C)** 1 **D)** cheksiz ko'p

47. Hisoblang: $(\frac{10}{\sqrt{6}+1} + \frac{2}{\sqrt{6}-2} - \frac{6}{3-\sqrt{6}}) \bullet (\sqrt{96} + \sqrt{(\frac{1}{24})^{-2}})$

A) -240 **B)** -120 **C)** -60 **D)** -480

48. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}} - \frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}} + \sqrt[3]{4}$

A) $(\sqrt[3]{4}+1)^2$
B) $\sqrt[3]{4}$
C) $\sqrt[3]{16}+1$
D) $-(\sqrt[3]{4}+1)^2$

49. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}} + \frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) 2 **B)** $2\sqrt{3}$ **C)** $\sqrt{6}$ **D)** $2\sqrt{2}$

50. x= n+ $\sqrt{n^2-16}; y = n - \sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 5 **B)** 3 **C)** 8 **D)** 4

51. Hisoblang: $\sqrt[3]{5+2\sqrt{13}} + \sqrt[3]{5-2\sqrt{13}}$

A) 0,25 $\sqrt[3]{65}$ **B)** 1 **C)** 1,5 **D)** $\sqrt[3]{2}$

52. Hisodblang: $\sqrt{11} \bullet (\frac{1}{1+\sqrt{2}} + \frac{1}{\sqrt{2}+\sqrt{3}} + \ldots + \frac{1}{\sqrt{98}+\sqrt{99}} + 1)$

A) 33 **B)** 22 **C)** 44 **D)** 11

53. Hisoblang: $(5^{5\sqrt{5}} \bullet \sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 1 **B)** $\sqrt{4}$ **C)** 5 **D)** 25

54. $\sqrt{8+2\sqrt{10+2\sqrt{5}}} + \sqrt{8-2\sqrt{10+2\sqrt{5}}} =$?

A) $\sqrt{2}+1$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+\sqrt{5}$
D) $\sqrt{2}+\sqrt{10}$

55. 4+2 $\sqrt{2}$ somiga teskari sonni toping.

A) 4−2 $\sqrt{2}$ **B)** −4−2 $\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** 0,5−0,25 $\sqrt{2}$

56. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2} + 2$

A) 1 **B)** -1 **C)** 3 **D)** 0

57. $a = \pi - e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1} - -\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $\sqrt{a^4+1} - \sqrt{a^4-1}$ **B)** $2a^2$ **C)** $2-2a^2$ **D)** 2

58. x= n+ $\sqrt{n^2-16}; y = n - \sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 5 **C)** 4 **D)** 8

59. Hisoblang: $(5^{5\sqrt{5}} \bullet \sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 1 **B)** $\sqrt{4}$ **C)** 25 **D)** 5

60. Hisodblang: $\sqrt{11} \bullet (\frac{1}{1+\sqrt{2}} + \frac{1}{\sqrt{2}+\sqrt{3}} + \ldots + \frac{1}{\sqrt{98}+\sqrt{99}} + 1)$

A) 11 **B)** 22 **C)** 44 **D)** 33

O'quvchi 09 (7-A)

Variant: 17EC5331 • Matematika • 7-A

1. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 5 **B)** 8 **C)** 4 **D)** 3

2. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 1 **C)** 2 **D)** 4

3. $\frac{\sqrt{0,5}}{\sqrt{2,4}} \bullet (\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot \frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) 1 **B)** $\sqrt{24}$ **C)** 5 **D)** 2

4. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}-\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$

A) $2-2a^2$ **B)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **C)** $2a^2$ **D)** 2

5. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt[3]{2}$
B) 2 O'quvchilarim mazza qilsin: 2-Variant
C) $\sqrt[6]{2}$
D) $\sqrt{2}$

6. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\left(\sqrt[3]{4}+1\right)^2$
B) $\sqrt[3]{4}$
C) $-\left(\sqrt[3]{4}+1\right)^2$
D) $\sqrt[3]{16}+1$

7. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 1 **B)** 27 **C)** 3 **D)** cheksiz ko'p

8. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 10 **C)** 20 **D)** 16

9. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 2 **B)** $\sqrt{2}+1$ **C)** 1 **D)** $\sqrt{2}-1$

10. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{7}$
B) $-2(\sqrt{7}+2\sqrt{3})$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $2\sqrt{14}$

11. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $4\sqrt{5}$ **B)** $6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $-6\sqrt{2}$

12. $\frac{\sqrt{0,5}}{\sqrt{2,4}} \bullet (\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot \frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) 5 **B)** 1 **C)** 2 **D)** $\sqrt{24}$

13. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})^{-1}}$

A) $\sqrt{30}$ **B)** 1 **C)** 0 **D)** 11

14. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 3 **B)** 5 **C)** 2 **D)** 7

15. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** 6+ $\sqrt{3}$ **C)** $6\sqrt{3}$ **D)** 6

16. Hisodblang: $\sqrt{11} \bullet (\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 22 **B)** 11 **C)** 44 **D)** 33

17. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-6\sqrt{2}$ **B)** $6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $4\sqrt{5}$

18. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 12 **B)** 10 **C)** 5−3 $\sqrt{3}$ **D)** $6\sqrt{3}$

19. Hisoblang: $\left(5^{5\sqrt{5}} \bullet \sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 1 **B)** 5 **C)** 25 **D)** $\sqrt{4}$

20. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2\ldots}}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 9 **B)** 7 **C)** 8 **D)** 6

21. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

22. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 12 **B)** 5−3 $\sqrt{3}$ **C)** $6\sqrt{3}$ **D)** 10

23. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{16}+1$
B) $-\left(\sqrt[3]{4}+1\right)^2$
C) $\sqrt[3]{4}$
D) $\left(\sqrt[3]{4}+1\right)^2$

24. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 1 **B)** 0 **C)** 1 **D)** 3

25. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{3}$ **B)** $2\sqrt{2}$ **C)** 2 **D)** $\sqrt{6}$

26. Hisodblang: $\sqrt{11} \bullet (\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 22 **B)** 44 **C)** 11 **D)** 33

27. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) −62 **B)** −50 **C)** −124 **D)** −105

28. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) cheksiz ko'p **B)** 1 **C)** 27 **D)** 3

29. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+1$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+\sqrt{5}$
D) $\sqrt{2}+\sqrt{10}$

30. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

31. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 16 **B)** 10 **C)** 20 **D)** 18

32. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2\sqrt{14}$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $2\sqrt{7}$

33. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 2 **B)** 1 **C)** 3 **D)** 4

34. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1-\frac{1}{n}+\frac{1}{n+1}$
C) $1+\frac{1}{n}+\frac{1}{n+1}$
D) $1-\frac{1}{n}-\frac{1}{n+1}$

35. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

36. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})}^{-1}$

A) $\sqrt{30}$ **B)** 0 **C)** 11 **D)** 1

37. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** $2\sqrt{2}$ **C)** $2\sqrt{3}$ **D)** 2

38. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 6 **B)** 5 **C)** 8 **D)** 4

39. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{2}}{2}$ **B)** $\frac{\sqrt{6}}{3}$ **C)** 2 **D)** $\sqrt{2}$

40. bu yerda $[a]-asoniningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+[-\sqrt{22}]+\ldots+[-\sqrt{40}]$

A) −124 **B)** −50 **C)** −105 **D)** −62

41. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}$ =?

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+1$
C) $\sqrt{2}+\sqrt{3}$
D) $\sqrt{2}+\sqrt{10}$

42. 4+2 $\sqrt{2}$ somiga teskari sonni toping.

A) 4−2 $\sqrt{2}$ **B)** −4−2 $\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** 0,5−0,25 $\sqrt{2}$

43. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) 2 **B)** $2-2a^2$ **C)** $2a^2$ **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

44. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 7 **B)** 2 **C)** 3 **D)** 5

45. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) −60 **B)** −120 **C)** −240 **D)** −480

46. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 5 **B)** 8 **C)** 6 **D)** 4

47. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}-1$ **B)** $\sqrt{2}+1$ **C)** 1 **D)** 2

48. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2\ldots}}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}$ =?

A) 7 **B)** 8 **C)** 6 **D)** 9

49. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 5 **B)** 1 **C)** $\sqrt{4}$ **D)** 25

50. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) −480 **B)** −60 **C)** −240 **D)** −120

51. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}+\frac{1}{n+1}$
B) $1-\frac{1}{n}+\frac{1}{n+1}$
C) $1+\frac{1}{n}-\frac{1}{n+1}$
D) $1-\frac{1}{n}-\frac{1}{n+1}$

52. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) 4−2 $\sqrt{2}$ **B)** −4−2 $\sqrt{2}$ **C)** 0,5−0,25 $\sqrt{2}$ **D)** $\frac{1}{4-2\sqrt{2}}$

53. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** 6 **C)** 6+ $\sqrt{3}$ **D)** $6\sqrt{3}$

54. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $\sqrt[3]{2}$ **B)** 1,5 **C)** 0,25 $\sqrt[3]{65}$ **D)** 1

55. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

56. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{2}}{2}$ **B)** $\sqrt{2}$ **C)** $\frac{\sqrt{6}}{3}$ **D)** 2

57. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 1 **B)** 0 **C)** -1 **D)** 3

58. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

A) $2\sqrt{3}$ **B)** $-2\sqrt{3}$ **C)** −2 **D)** 2

59. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 8 **C)** 4 **D)** 5

60. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1 **B)** 0,25 $\sqrt[3]{65}$ **C)** $\sqrt[3]{2}$ **D)** 1,5

O'quvchi 10 (7-A)

Variant: 1837737B • Matematika • 7-A

1. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 2 **B)** 3 **C)** 1 **D)** 4

2. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 0 **B)** 1 **C)** 3 **D)** 1

3. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 6 **B)** 8 **C)** 5 **D)** 4

4. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

5. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $(\sqrt[3]{4}+1)^2$
B) $\sqrt[3]{16}+1$
C) $-(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{4}$

6. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $6\sqrt{3}$ **B)** 10 **C)** 12 **D)** $5-3\sqrt{3}$

7. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) −124 **B)** −50 **C)** −105 **D)** −62

8. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) cheksiz ko'p **B)** 3 **C)** 27 **D)** 1

9. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1-\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}-\frac{1}{n+1}$
D) $1+\frac{1}{n}+\frac{1}{n+1}$

10. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}-1$ **B)** 2 **C)** 1 **D)** $\sqrt{2}+1$

11. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 1 **B)** 2 **C)** 3 **D)** 4

12. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** $2\sqrt{3}$ **C)** 2 **D)** $2\sqrt{2}$

13. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{2}$ **B)** $2\sqrt{3}$ **C)** 2 **D)** $\sqrt{6}$

14. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 7 **B)** 8 **C)** 6 **D)** 9

15. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}-\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$

A) 2 **B)** $2-2a^2$ **C)** $2a^2$ **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

16. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\sqrt{2}$ **B)** $\frac{\sqrt{6}}{3}$ **C)** $\frac{\sqrt{2}}{2}$ **D)** 2

17. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 2 **B)** 7 **C)** 3 **D)** 5

18. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 20 **B)** 10 **C)** 18 **D)** 16

19. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet\left(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}}\right)\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 2 **B)** $\sqrt{24}$ **C)** 5 **D)** 1

20. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})^{-1}}$

A) 11 **B)** $\sqrt{30}$ **C)** 1 **D)** 0

21. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 5 **B)** 25 **C)** 1 **D)** $\sqrt{4}$

22. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

A) −2 **B)** $-2\sqrt{3}$ **C)** $2\sqrt{3}$ **D)** 2

23. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet\left(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}}\right)\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 5 **B)** 2 **C)** $\sqrt{24}$ **D)** 1

24. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2\sqrt{7}$
C) $2\sqrt{14}$
D) $2(2\sqrt{3}-\sqrt{7})$

25. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) $\sqrt{4}$ **B)** 25 **C)** 5 **D)** 1

26. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 5 **C)** 8 **D)** 4

27. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 22 **B)** 33 **C)** 11 **D)** 44

28. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 4 **B)** 6 **C)** 5 **D)** 8

29. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1,5 **B)** 1 **C)** 0,25 $\sqrt[3]{65}$ **D)** $\sqrt[3]{2}$

30. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2(2\sqrt{3}-\sqrt{7})$
C) $2\sqrt{7}$
D) $2\sqrt{14}$

31. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 0,25 $\sqrt[3]{65}$ **B)** $\sqrt[3]{2}$ **C)** 1 **D)** 1,5

32. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 3 **B)** 27 **C)** cheksiz ko'p **D)** 1

33. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) $6\sqrt{3}$ **B)** 6 **C)** 3 **D)** $6+\sqrt{3}$

34. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) −50 **B)** −124 **C)** −62 **D)** −105

35. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** $6\sqrt{3}$ **C)** 6 **D)** $6+\sqrt{3}$

36. $4+2\sqrt{2}$ soniga teskari sonni toping.

A) $0{,}5-0{,}25\sqrt{2}$ **B)** $4-2\sqrt{2}$ **C)** $-4-2\sqrt{2}$ **D)** $\frac{1}{4-2\sqrt{2}}$

37. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 20 **B)** 16 **C)** 18 **D)** 10

38. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-6\sqrt{2}$ **B)** $-4\sqrt{5}$ **C)** $4\sqrt{5}$ **D)** $6\sqrt{2}$

39. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 3 **B)** 2 **C)** 7 **D)** 5

40. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) −60 **B)** −480 **C)** −240 **D)** −120

41. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 3 **B)** 0 **C)** -1 **D)** 1

42. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=$?

A) $\sqrt{2}+\sqrt{10}$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+\sqrt{5}$
D) $\sqrt{2}+1$

43. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}+\frac{1}{n+1}$
B) $1-\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}-\frac{1}{n+1}$
D) $1+\frac{1}{n}-\frac{1}{n+1}$

44. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

45. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $6\sqrt{2}$ **B)** $-6\sqrt{2}$ **C)** $4\sqrt{5}$ **D)** $-4\sqrt{5}$

46. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}-\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2a^2$ **B)** $2-2a^2$ **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** 2

47. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\left(\sqrt[3]{4}+1\right)^2$
B) $\sqrt[3]{16}+1$
C) $\sqrt[3]{4}$
D) $-\left(\sqrt[3]{4}+1\right)^2$

48. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 33 **B)** 44 **C)** 11 **D)** 22

49. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) 2 **B)** $\sqrt{2}$ **C)** $\frac{\sqrt{6}}{3}$ **D)** $\frac{\sqrt{2}}{2}$

50. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 5 **C)** 8 **D)** 4

51. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

52. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

53. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt{2}$
B) 2 O'quvchilarim mazza qilsin: 2-Variant
C) $\sqrt[3]{2}$
D) $\sqrt[6]{2}$

54. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=$?

A) 7 **B)** 6 **C)** 9 **D)** 8

55. $4+2\sqrt{2}$ somiga teskari sonni toping.

A) $4-2\sqrt{2}$ **B)** $0{,}5-0{,}25\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** $-4-2\sqrt{2}$

56. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 10 **B)** 12 **C)** $6\sqrt{3}$ **D)** $5-3\sqrt{3}$

57. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=$?

A) $\sqrt{2}+\sqrt{10}$
B) $\sqrt{2}+\sqrt{5}$
C) $\sqrt{2}+\sqrt{3}$
D) $\sqrt{2}+1$

58. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) −120 **B)** −480 **C)** −240 **D)** −60

59. $\sqrt{\sqrt{241+44\sqrt{30}}}-\left(\sqrt{6}-\sqrt{5}\right)^{-1}$

A) 1 **B)** 11 **C)** $\sqrt{30}$ **D)** 0

60. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** $\sqrt{2}-1$ **C)** $\sqrt{2}+1$ **D)** 2

O'quvchi 11 (7-A)

Variant: FC22F217 • Matematika • 7-A

1. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}--\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$
A) $\sqrt{a^4+1}-\sqrt{a^4-1}$ **B)** 2 **C)** $2-2a^2$ **D)** $2a^2$

2. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}$ =?
A) $4\sqrt{5}$ **B)** $-6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $6\sqrt{2}$

3. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$
A) $2(2\sqrt{3}-\sqrt{7})$
B) $2\sqrt{7}$
C) $-2(\sqrt{7}+2\sqrt{3})$
D) $2\sqrt{14}$

4. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$
A) -2 **B)** $2\sqrt{3}$ **C)** 2 **D)** $-2\sqrt{3}$

5. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$
A) 1 **B)** 11 **C)** $\sqrt{30}$ **D)** 0

6. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?
A) 3 **B)** 4 **C)** 2 **D)** 1

7. $\sqrt{22-30\sqrt{4-2\sqrt{3}}+5+3\sqrt{3}}$
A) $5-3\sqrt{3}$ **B)** 10 **C)** 12 **D)** $6\sqrt{3}$

8. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.
A) 5 **B)** 2 **C)** 3 **D)** 7

9. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$
A) -120 **B)** -60 **C)** -240 **D)** -480

10. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$
A) 11 **B)** $\sqrt{30}$ **C)** 1 **D)** 0

11. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?
A) $-6\sqrt{2}$ **B)** $6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $4\sqrt{5}$

12. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}$ =?
A) $\sqrt{2}+\sqrt{3}$
B) $\sqrt{2}+1$
C) $\sqrt{2}+\sqrt{5}$
D) $\sqrt{2}+\sqrt{10}$

13. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$
A) 22 **B)** 11 **C)** 33 **D)** 44

14. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.
A) 16 **B)** 18 **C)** 20 **D)** 10

15. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$
A) 2 **B)** $-2\sqrt{3}$ **C)** $2\sqrt{3}$ **D)** -2

16. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?
A) 2 **B)** $\sqrt{24}$ **C)** 5 **D)** 1

17. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$
A) 0 **B)** 1 **C)** -1 **D)** 3

18. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$
A) 11 **B)** 22 **C)** 44 **D)** 33

19. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.
A) 20 **B)** 10 **C)** 16 **D)** 18

20. Bunda x=8 va y= $2\sqrt{2}\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?
A) 4 **B)** 8 **C)** 5 **D)** 6

21. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.
A) 5 **B)** 7 **C)** 2 **D)** 3

22. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$
A) 2 **B)** $2\sqrt{2}$ **C)** $\sqrt{6}$ **D)** $2\sqrt{3}$

23. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$
A) 1 **B)** $0,25\sqrt[3]{65}$ **C)** 1,5 **D)** $\sqrt[3]{2}$

24. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$
A) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

25. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}--\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$
A) $2a^2$ **B)** 2 **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** $2-2a^2$

26. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$
A) 2 **B)** $\frac{\sqrt{6}}{3}$ **C)** $\frac{\sqrt{2}}{2}$ **D)** $\sqrt{2}$

27. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$
A) -105 **B)** -62 **C)** -50 **D)** -124

28. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?
A) 1 **B)** $\sqrt{24}$ **C)** 5 **D)** 2

29. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.
A) 6+ $\sqrt{3}$ **B)** 6 **C)** 3 **D)** $6\sqrt{3}$

30. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.
A) 2 **B)** $\sqrt{2}+1$ **C)** $\sqrt{2}-1$ **D)** 1

31. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$
A) $2\sqrt{2}$ **B)** $\sqrt{6}$ **C)** $2\sqrt{3}$ **D)** 2

32. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$
A) $\frac{\sqrt{2}}{2}$ **B)** $\frac{\sqrt{6}}{3}$ **C)** $\sqrt{2}$ **D)** 2

33. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.
A) 1 **B)** 3 **C)** 27 **D)** cheksiz ko'p

34. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}$ =?
A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{10}$

35. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$
A) $\sqrt[3]{16}+1$
B) $(\sqrt[3]{4}+1)^2$
C) $-(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{4}$

36. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.
A) 8 **B)** 3 **C)** 5 **D)** 4

37. Hisoblang: $(5^{5\sqrt{5}} \bullet \sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 5 **B)** 1 **C)** 25 **D)** $\sqrt{4}$

38. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}} : \frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

39. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}}-y^{\frac{1}{3}}) \bullet \frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 8 **B)** 4 **C)** 6 **D)** 5

40. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}} - \sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{14}$
B) $-2(\sqrt{7}+2\sqrt{3})$
C) $2\sqrt{7}$
D) $2(2\sqrt{3}-\sqrt{7})$

41. 4+2 $\sqrt{2}$ somiga teskari sonni toping.

A) $\frac{1}{4-2\sqrt{2}}$ **B)** 4−2 $\sqrt{2}$ **C)** −4−2 $\sqrt{2}$ **D)** 0,5−0,25 $\sqrt{2}$

42. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 4 **B)** 8 **C)** 3 **D)** 5

43. Hisoblang: $(5^{5\sqrt{5}} \bullet \sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 25 **B)** $\sqrt{4}$ **C)** 5 **D)** 1

44. Hisoblang: $\sqrt[3]{5+2\sqrt{13}} + \sqrt[3]{5-2\sqrt{13}}$

A) 1,5 **B)** $\sqrt[3]{2}$ **C)** 1 **D)** 0,25 $\sqrt[3]{65}$

45. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\dots}}} + \sqrt{30+\sqrt{30+\sqrt{30+\dots}}} = ?$

A) 8 **B)** 6 **C)** 9 **D)** 7

46. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

47. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\dots}}} + \sqrt{30+\sqrt{30+\sqrt{30+\dots}}} = ?$

A) 6 **B)** 8 **C)** 9 **D)** 7

48. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 1 **C)** 2 **D)** 4

49. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2} + 2$

A) 3 **B)** 1 **C)** 1 **D)** 0

50. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt[6]{2}$
B) $\sqrt[3]{2}$
C) 2 O'quvchilarim mazza qilsin: 2-Variant
D) $\sqrt{2}$

51. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) 0,5−0,25 $\sqrt{2}$ **B)** $\frac{1}{4-2\sqrt{2}}$ **C)** −4−2 $\sqrt{2}$ **D)** 4−2 $\sqrt{2}$

52. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}-\frac{1}{n+1}$
C) $1-\frac{1}{n}+\frac{1}{n+1}$
D) $1+\frac{1}{n}+\frac{1}{n+1}$

53. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** 3 **C)** cheksiz ko'p **D)** 1

54. bu yerda $[a]-asoniningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+[-\sqrt{22}]+\dots+[-\sqrt{40}]$

A) −105 **B)** −124 **C)** −62 **D)** −50

55. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\dots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\dots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}-1$ **B)** $\sqrt{2}+1$ **C)** 1 **D)** 2

56. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}-\frac{1}{n+1}$
B) $1-\frac{1}{n}+\frac{1}{n+1}$
C) $1+\frac{1}{n}+\frac{1}{n+1}$
D) $1+\frac{1}{n}-\frac{1}{n+1}$

57. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) $6\sqrt{3}$ **B)** 3 **C)** 6+ $\sqrt{3}$ **D)** 6

58. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 10 **B)** 5−3 $\sqrt{3}$ **C)** $6\sqrt{3}$ **D)** 12

59. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}) \bullet (\sqrt{96}+\sqrt{(\frac{1}{24})^{-2}})$

A) −240 **B)** −480 **C)** −60 **D)** −120

60. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}} - \frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}} + \sqrt[3]{4}$

A) $\sqrt[3]{16}+1$
B) $\sqrt[3]{4}$
C) $(\sqrt[3]{4}+1)^2$
D) $-(\sqrt[3]{4}+1)^2$

O'quvchi 12 (7-A)

Variant: 78995A61 • Matematika • 7-A

1. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 5 **C)** 8 **D)** 4

2. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{3}$ **B)** $\sqrt{6}$ **C)** $2\sqrt{2}$ **D)** 2

3. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{16}+1$
B) $\sqrt[3]{4}$
C) $-(\sqrt[3]{4}+1)^2$
D) $(\sqrt[3]{4}+1)^2$

4. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

5. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}+\frac{1}{n+1}$
B) $1+\frac{1}{n}-\frac{1}{n+1}$
C) $1-\frac{1}{n}-\frac{1}{n+1}$
D) $1-\frac{1}{n}+\frac{1}{n+1}$

6. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -50 **B)** -124 **C)** -62 **D)** -105

7. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}-\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$

A) 2 **B)** $2a^2$ **C)** $2-2a^2$ **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

8. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+1$
C) $\sqrt{2}+\sqrt{3}$
D) $\sqrt{2}+\sqrt{10}$

9. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2(2\sqrt{3}-\sqrt{7})$
B) $-2(\sqrt{7}+2\sqrt{3})$
C) $2\sqrt{7}$
D) $2\sqrt{14}$

10. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet\left(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}}\right)\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 1 **B)** $\sqrt{24}$ **C)** 5 **D)** 2

11. $4+2\sqrt{2}$ somiga teskari sonni toping.

A) $-4-2\sqrt{2}$ **B)** $4-2\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** $0,5-0,25\sqrt{2}$

12. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) $6+\sqrt{3}$ **B)** 3 **C)** $6\sqrt{3}$ **D)** 6

13. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet\left(x^{\frac{1}{3}}-y^{\frac{1}{3}}\right)\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet\left(x^{\frac{1}{3}}+y^{\frac{1}{3}}\right)=?$

A) 4 **B)** 8 **C)** 5 **D)** 6

14. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) -480 **B)** -120 **C)** -60 **D)** -240

15. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1,5 **B)** $\sqrt[3]{2}$ **C)** $0,25\sqrt[3]{65}$ **D)** 1

16. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -50 **B)** -62 **C)** -124 **D)** -105

17. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 11 **B)** 33 **C)** 44 **D)** 22

18. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-4\sqrt{5}$ **B)** $6\sqrt{2}$ **C)** $4\sqrt{5}$ **D)** $-6\sqrt{2}$

19. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 5 **B)** 2 **C)** 3 **D)** 7

20. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $(\sqrt[3]{4}+1)^2$
B) $\sqrt[3]{4}$
C) $-(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{16}+1$

21. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2\sqrt{14}$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $2\sqrt{7}$

22. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 5 **B)** 1 **C)** 25 **D)** $\sqrt{4}$

23. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 3 **B)** 2 **C)** 7 **D)** 5

24. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) 2 **B)** $\frac{\sqrt{2}}{2}$ **C)** $\frac{\sqrt{6}}{3}$ **D)** $\sqrt{2}$

25. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 10 **B)** 18 **C)** 20 **D)** 16

26. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) $\sqrt{30}$ **B)** 11 **C)** 0 **D)** 1

27. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 1 **B)** 5 **C)** $\sqrt{4}$ **D)** 25

28. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}-1$ **B)** 1 **C)** 2 **D)** $\sqrt{2}+1$

29. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{3}$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{5}$

30. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt[6]{2}$
B) $\sqrt{2}$
C) 2 O'quvchilarim mazza qilsin: 2-Variant
D) $\sqrt[3]{2}$

31. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6 **B)** $6+\sqrt{3}$ **C)** $6\sqrt{3}$ **D)** 3

32. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 2 **B)** 1 **C)** 4 **D)** 3

33. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) $\frac{1}{4-2\sqrt{2}}$ **B)** 4−2 $\sqrt{2}$ **C)** 0,5−0,25 $\sqrt{2}$ **D)** −4−2 $\sqrt{2}$

34. Hisodblang: $\sqrt{11} \bullet (\frac{1}{1+\sqrt{2}} + \frac{1}{\sqrt{2}+\sqrt{3}} + \ldots + \frac{1}{\sqrt{98}+\sqrt{99}} + 1)$

A) 11 **B)** 22 **C)** 33 **D)** 44

35. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 2 **B)** $\sqrt{2}-1$ **C)** $\sqrt{2}+1$ **D)** 1

36. x= n+ $\sqrt{n^2-16}; y = n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 4 **B)** 8 **C)** 5 **D)** 3

37. $\frac{\sqrt{0,5}}{\sqrt{2,4}} \bullet (\sqrt{\frac{1,2-0,7}{1,2+0,7}} + \sqrt{\frac{2,4+1,4}{2,4-1,4}}) \cdot \frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}} = ?$

A) $\sqrt{24}$ **B)** 1 **C)** 2 **D)** 5

38. $x^2+y^2+z^2 = 6x+8y+10z-50$ bo'lsa, x ni toping.

A) 1 **B)** cheksiz ko'p **C)** 27 **D)** 3

39. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 12 **B)** 10 **C)** $6\sqrt{3}$ **D)** 5−3 $\sqrt{3}$

40. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}} + \sqrt{30+\sqrt{30+\sqrt{30+\ldots}}} = ?$

A) 6 **B)** 8 **C)** 7 **D)** 9

41. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}} - \frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

A) −2 $\sqrt{3}$ **B)** 2 **C)** −2 **D)** 2 $\sqrt{3}$

42. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}} = \sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 16 **C)** 20 **D)** 10

43. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}} + \frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) 2 $\sqrt{2}$ **B)** $\sqrt{6}$ **C)** 2 $\sqrt{3}$ **D)** 2

44. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}} : \frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

45. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2} - \sqrt{9x^2-12xy+4y^2} =$?

A) $6\sqrt{2}$ **B)** $4\sqrt{5}$ **C)** $-4\sqrt{5}$ **D)** $-6\sqrt{2}$

46. Bunda x=8 va y= 2 $\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}} - y^{\frac{1}{3}}) \bullet \frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}} + y^{\frac{1}{3}}) = ?$

A) 6 **B)** 4 **C)** 5 **D)** 8

47. $\sqrt{\sqrt{241+44\sqrt{30}}} - (\sqrt{6}-\sqrt{5})^{-1}$

A) 0 **B)** 11 **C)** 1 **D)** $\sqrt{30}$

48. $a = \pi - e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1} - -\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) 2 **B)** $2-2a^2$ **C)** $2a^2$ **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

49. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}} + \sqrt{30+\sqrt{30+\sqrt{30+\ldots}}} = ?$

A) 9 **B)** 7 **C)** 8 **D)** 6

50. A= $\sqrt{2}-\sqrt[3]{2}, B = \sqrt[3]{2}+\sqrt[6]{2}+1$ va $C = \sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

51. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}} + \frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}} =$

A) 2 **B)** $\sqrt{2}$ **C)** $\frac{\sqrt{2}}{2}$ **D)** $\frac{\sqrt{6}}{3}$

52. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}+\frac{1}{n+1}$
B) $1+\frac{1}{n}+\frac{1}{n+1}$
C) $1+\frac{1}{n}-\frac{1}{n+1}$
D) $1-\frac{1}{n}-\frac{1}{n+1}$

53. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}} - \frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

A) −2 **B)** −2 $\sqrt{3}$ **C)** 2 **D)** 2 $\sqrt{3}$

54. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2} + 2$

A) 0 **B)** 1 **C)** 1 **D)** 3

55. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2} + 2$

A) 3 **B)** 0 **C)** 1 **D)** -1

56. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $6\sqrt{3}$ **B)** 12 **C)** 5−3 $\sqrt{3}$ **D)** 10

57. $x^2+y^2+z^2 = 6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** cheksiz ko'p **C)** 1 **D)** 3

58. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 1 **B)** 4 **C)** 2 **D)** 3

59. Hisoblang: $\sqrt[3]{5+2\sqrt{13}} + \sqrt[3]{5-2\sqrt{13}}$

A) 0,25 $\sqrt[3]{65}$ **B)** 1 **C)** 1,5 **D)** $\sqrt[3]{2}$

60. Hisoblang: $(\frac{10}{\sqrt{6}+1} + \frac{2}{\sqrt{6}-2} - \frac{6}{3-\sqrt{6}}) \bullet (\sqrt{96} + \sqrt{(\frac{1}{24})^{-2}})$

A) −240 **B)** −60 **C)** −120 **D)** −480

O'quvchi 13 (7-A)

Variant: 71A41C63 • Matematika • 7-A

1. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $5-3\sqrt{3}$ **B)** 10 **C)** 12 **D)** $6\sqrt{3}$

2. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 1 **B)** 3 **C)** 2 **D)** 4

3. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}$ =?

A) $4\sqrt{5}$ **B)** $6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $-6\sqrt{2}$

4. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 1 **C)** 4 **D)** 2

5. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt[6]{2}$
B) 2 O'quvchilarim mazza qilsin: 2-Variant
C) $\sqrt{2}$
D) $\sqrt[3]{2}$

6. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

7. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $5-3\sqrt{3}$ **B)** 10 **C)** 12 **D)** $6\sqrt{3}$

8. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) $\sqrt{24}$ **B)** 5 **C)** 2 **D)** 1

9. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}$ =?

A) $\sqrt{2}+\sqrt{10}$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+\sqrt{5}$
D) $\sqrt{2}+1$

10. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

11. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) -240 **B)** -480 **C)** -60 **D)** -120

12. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2\sqrt{7}$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $2\sqrt{14}$

13. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 25 **B)** 5 **C)** $\sqrt{4}$ **D)** 1

14. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 22 **B)** 33 **C)** 44 **D)** 11

15. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 3 **B)** 1 **C)** cheksiz ko'p **D)** 27

16. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 20 **B)** 18 **C)** 10 **D)** 16

17. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}-\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2-2a^2$ **B)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **C)** $2a^2$ **D)** 2

18. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** $\sqrt{2}-1$ **C)** 2 **D)** $\sqrt{2}+1$

19. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) -120 **B)** -240 **C)** -60 **D)** -480

20. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1-\frac{1}{n}-\frac{1}{n+1}$
C) $1+\frac{1}{n}+\frac{1}{n+1}$
D) $1-\frac{1}{n}+\frac{1}{n+1}$

21. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}$ =?

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{3}$

22. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 5 **B)** $\sqrt{4}$ **C)** 1 **D)** 25

23. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 3 **B)** 27 **C)** cheksiz ko'p **D)** 1

24. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}-\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2-2a^2$ **B)** 2 **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** $2a^2$

25. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 0 **B)** 1 **C)** 11 **D)** $\sqrt{30}$

26. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 2 **B)** $\sqrt{2}+1$ **C)** 1 **D)** $\sqrt{2}-1$

27. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $\sqrt[3]{2}$ **B)** 1,5 **C)** 1 **D)** $0,25\sqrt[3]{65}$

28. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 11 **B)** 44 **C)** 33 **D)** 22

29. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) 2 **B)** $\sqrt{6}$ **C)** $2\sqrt{3}$ **D)** $2\sqrt{2}$

30. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 4 **B)** 8 **C)** 6 **D)** 5

31. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) 2 **B)** $\frac{\sqrt{6}}{3}$ **C)** $\frac{\sqrt{2}}{2}$ **D)** $\sqrt{2}$

32. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 6 **B)** 5 **C)** 4 **D)** 8

33. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 10 **B)** 20 **C)** 16 **D)** 18

34. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 1 **B)** 0 **C)** 1 **D)** 3

35. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{4}$
B) $-(\sqrt[3]{4}+1)^2$
C) $(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{16}+1$

36. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** 6 **C)** $6\sqrt{3}$ **D)** $6+\sqrt{3}$

37. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}-\frac{1}{n+1}$
C) $1-\frac{1}{n}+\frac{1}{n+1}$
D) $1+\frac{1}{n}+\frac{1}{n+1}$

38. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) 2 **B)** $2\sqrt{2}$ **C)** $\sqrt{6}$ **D)** $2\sqrt{3}$

39. bu yerda $[a]-asonioningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -62 **B)** -105 **C)** -50 **D)** -124

40. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 8 **B)** 4 **C)** 5 **D)** 3

41. $4+2\sqrt{2}$ soniga teskari sonni toping.

A) $0{,}5-0{,}25\sqrt{2}$ **B)** $4-2\sqrt{2}$ **C)** $-4-2\sqrt{2}$ **D)** $\frac{1}{4-2\sqrt{2}}$

42. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})^{-1}}$

A) $\sqrt{30}$ **B)** 1 **C)** 0 **D)** 11

43. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 4 **C)** 8 **D)** 5

44. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 3 **B)** 1 **C)** 0 **D)** -1

45. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{7}$
B) $2\sqrt{14}$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $-2(\sqrt{7}+2\sqrt{3})$

46. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 5 **B)** $\sqrt{24}$ **C)** 1 **D)** 2

47. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $(\sqrt[3]{4}+1)^2$
B) $\sqrt[3]{4}$
C) $-(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{16}+1$

48. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 6 **B)** 8 **C)** 9 **D)** 7

49. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

50. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $6\sqrt{2}$ **B)** $4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $-4\sqrt{5}$

51. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

52. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) 2 **B)** $\frac{\sqrt{6}}{3}$ **C)** $\frac{\sqrt{2}}{2}$ **D)** $\sqrt{2}$

53. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

54. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 7 **B)** 8 **C)** 9 **D)** 6

55. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** $6+\sqrt{3}$ **C)** 6 **D)** $6\sqrt{3}$

56. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 5 **B)** 3 **C)** 7 **D)** 2

57. bu yerda $[a]-asonioningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -124 **B)** -62 **C)** -105 **D)** -50

58. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 3 **B)** 5 **C)** 7 **D)** 2

59. $4+2\sqrt{2}$ somiga teskari sonni toping.

A) $-4-2\sqrt{2}$ **B)** $\frac{1}{4-2\sqrt{2}}$ **C)** $0{,}5-0{,}25\sqrt{2}$ **D)** $4-2\sqrt{2}$

60. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $\sqrt[3]{2}$ **B)** 1,5 **C)** 1 **D)** $0{,}25\sqrt[3]{65}$

O'quvchi 14 (7-A)

Variant: 8E0B1E36 • Matematika • 7-A

1. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $0{,}25\ \sqrt[3]{65}$ **B)** 1,5 **C)** $\sqrt[3]{2}$ **D)** 1

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

A) $\frac{\sqrt{2}}{2}$ **B)** 2 **C)** $\frac{\sqrt{6}}{3}$ **D)** $\sqrt{2}$

3. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}-1$ **B)** $\sqrt{2}+1$ **C)** 1 **D)** 2

4. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $-(\sqrt[3]{4}+1)^2$

B) $(\sqrt[3]{4}+1)^2$

C) $\sqrt[3]{4}$

D) $\sqrt[3]{16}+1$

5. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -105 **B)** -124 **C)** -50 **D)** -62

6. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-4\sqrt{5}$ **B)** $4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $6\sqrt{2}$

7. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 2 **B)** 3 **C)** 4 **D)** 1

8. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** 6+ $\sqrt{3}$ **C)** 6 **D)** 6 $\sqrt{3}$

9. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})^{-1}}$

A) $\sqrt{30}$ **B)** 0 **C)** 1 **D)** 11

10. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=$?

A) 9 **B)** 6 **C)** 7 **D)** 8

11. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{2}$ **B)** $2\sqrt{3}$ **C)** $\sqrt{6}$ **D)** 2

12. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

13. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 0 **B)** -1 **C)** 1 **D)** 3

14. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

B) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

C) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

D) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

15. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})^{-1}}$

A) 11 **B)** 1 **C)** 0 **D)** $\sqrt{30}$

16. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 8 **C)** 4 **D)** 5

17. $a=\pi-e$, bo'lsa ifodani soddalashtiring.

$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}-\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2a^2$ **B)** $2-2a^2$ **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** 2

18. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 8 **B)** 6 **C)** 5 **D)** 4

19. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 10 **B)** 18 **C)** 20 **D)** 16

20. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

21. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=$?

A) $\sqrt{2}+1$

B) $\sqrt{2}+\sqrt{5}$

C) $\sqrt{2}+\sqrt{3}$

D) $\sqrt{2}+\sqrt{10}$

22. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{7}$

B) $2\sqrt{14}$

C) $2(2\sqrt{3}-\sqrt{7})$

D) $-2(\sqrt{7}+2\sqrt{3})$

23. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 2 **C)** 1 **D)** 4

24. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) -120 **B)** -240 **C)** -480 **D)** -60

25. $a=\pi-e$, bo'lsa ifodani soddalashtiring.

$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}-\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2a^2$ **B)** 2 **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** $2-2a^2$

26. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 8 **B)** 4 **C)** 3 **D)** 5

27. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$

B) $1-\frac{1}{n}+\frac{1}{n+1}$

C) $1+\frac{1}{n}+\frac{1}{n+1}$

D) $1-\frac{1}{n}-\frac{1}{n+1}$

28. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1,5 **B)** 1 **C)** $\sqrt[3]{2}$ **D)** $0{,}25\ \sqrt[3]{65}$

29. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

C) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

30. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $5-3\sqrt{3}$ **B)** 12 **C)** $6\sqrt{3}$ **D)** 10

31. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=$?

A) $\sqrt{24}$ **B)** 5 **C)** 2 **D)** 1

32. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}-\frac{1}{n+1}$

B) $1-\frac{1}{n}+\frac{1}{n+1}$

C) $1+\frac{1}{n}-\frac{1}{n+1}$

D) $1+\frac{1}{n}+\frac{1}{n+1}$

33. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -62 **B)** -105 **C)** -50 **D)** -124

34. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

35. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 5 **B)** 1 **C)** 25 **D)** $\sqrt{4}$

36. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 6 **B)** 7 **C)** 8 **D)** 9

37. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2(2\sqrt{3}-\sqrt{7})$
C) $2\sqrt{14}$
D) $2\sqrt{7}$

38. $4+2\sqrt{2}$ soniga teskari sonni toping.

A) $0,5-0,25\sqrt{2}$ **B)** $4-2\sqrt{2}$ **C)** $-4-2\sqrt{2}$ **D)** $\frac{1}{4-2\sqrt{2}}$

39. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt[6]{2}$
B) $\sqrt[3]{2}$
C) $\sqrt{2}$
D) 2 O'quvchilarim mazza qilsin: 2-Variant

40. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 20 **B)** 16 **C)** 10 **D)** 18

41. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{3}$

42. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** cheksiz ko'p **C)** 3 **D)** 1

43. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 2 **B)** 3 **C)** 7 **D)** 5

44. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{16}+1$
B) $\sqrt[3]{4}$
C) $\left(\sqrt[3]{4}+1\right)^2$
D) $-\left(\sqrt[3]{4}+1\right)^2$

45. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 22 **B)** 44 **C)** 33 **D)** 11

46. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 2 **B)** 3 **C)** 7 **D)** 5

47. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) -60 **B)** -240 **C)** -120 **D)** -480

48. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet\left(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}}\right)\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 2 **B)** 5 **C)** $\sqrt{24}$ **D)** 1

49. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet\left(x^{\frac{1}{3}}-y^{\frac{1}{3}}\right)\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet\left(x^{\frac{1}{3}}+y^{\frac{1}{3}}\right)=?$

A) 8 **B)** 6 **C)** 5 **D)** 4

50. Hisodblang: $\sqrt{11}\bullet\left(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1\right)$

A) 44 **B)** 11 **C)** 22 **D)** 33

51. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 3 **B)** 1 **C)** 27 **D)** cheksiz ko'p

52. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\sqrt{2}$ **B)** $\frac{\sqrt{2}}{2}$ **C)** 2 **D)** $\frac{\sqrt{6}}{3}$

53. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 12 **B)** 10 **C)** $5-3\sqrt{3}$ **D)** $6\sqrt{3}$

54. $4+2\sqrt{2}$ somiga teskari sonni toping.

A) $-4-2\sqrt{2}$ **B)** $4-2\sqrt{2}$ **C)** $0,5-0,25\sqrt{2}$ **D)** $\frac{1}{4-2\sqrt{2}}$

55. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** 2 **C)** $\sqrt{2}-1$ **D)** 1

56. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) $6\sqrt{3}$ **B)** 3 **C)** 6 **D)** $6+\sqrt{3}$

57. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) $\sqrt{4}$ **B)** 25 **C)** 1 **D)** 5

58. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 1 **B)** 3 **C)** 1 **D)** 0

59. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{3}$ **B)** 2 **C)** $\sqrt{6}$ **D)** $2\sqrt{2}$

60. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $6\sqrt{2}$ **B)** $-6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $4\sqrt{5}$

O'quvchi 15 (7-A)

Variant: D64FD0F9 • Matematika • 7-A

1. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}}-y^{\frac{1}{3}}) \bullet \frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 6 **B)** 5 **C)** 4 **D)** 8

2. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2a^2$ **B)** $2-2a^2$ **C)** 2 **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

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

A) $\sqrt{2}$ **B)** 2 **C)** $\frac{\sqrt{2}}{2}$ **D)** $\frac{\sqrt{6}}{3}$

4. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{3}$ **B)** $2\sqrt{2}$ **C)** 2 **D)** $\sqrt{6}$

5. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}+\frac{1}{n+1}$
B) $1+\frac{1}{n}-\frac{1}{n+1}$
C) $1-\frac{1}{n}-\frac{1}{n+1}$
D) $1-\frac{1}{n}+\frac{1}{n+1}$

6. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) $6+\sqrt{3}$ **B)** 3 **C)** $6\sqrt{3}$ **D)** 6

7. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\dots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\dots}}}=?$

A) 7 **B)** 8 **C)** 6 **D)** 9

8. Hisodblang: $\sqrt{11} \bullet (\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\dots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 11 **B)** 44 **C)** 22 **D)** 33

9. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 0 **B)** 11 **C)** 1 **D)** $\sqrt{30}$

10. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{2}}{2}$ **B)** $\sqrt{2}$ **C)** $\frac{\sqrt{6}}{3}$ **D)** 2

11. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 10 **C)** 16 **D)** 20

12. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) $\frac{1}{4-2\sqrt{2}}$ **B)** 0,5−0,25 $\sqrt{2}$ **C)** 4−2 $\sqrt{2}$ **D)** −4−2 $\sqrt{2}$

13. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\dots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\dots}}}=?$

A) 6 **B)** 7 **C)** 9 **D)** 8

14. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

A) $-2\sqrt{3}$ **B)** 2 **C)** −2 **D)** $2\sqrt{3}$

15. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** cheksiz ko'p **C)** 1 **D)** 3

16. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2(2\sqrt{3}-\sqrt{7})$
B) $2\sqrt{14}$
C) $-2(\sqrt{7}+2\sqrt{3})$
D) $2\sqrt{7}$

17. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $(\sqrt[3]{4}+1)^2$
B) $\sqrt[3]{16}+1$
C) $-(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{4}$

18. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 4 **B)** 5 **C)** 8 **D)** 3

19. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}$ =?

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+1$
C) $\sqrt{2}+\sqrt{3}$
D) $\sqrt{2}+\sqrt{10}$

20. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2(2\sqrt{3}-\sqrt{7})$
B) $2\sqrt{7}$
C) $2\sqrt{14}$
D) $-2(\sqrt{7}+2\sqrt{3})$

21. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

A) $2\sqrt{3}$ **B)** 2 **C)** $-2\sqrt{3}$ **D)** −2

22. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) $\sqrt{30}$ **B)** 1 **C)** 11 **D)** 0

23. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

24. bu yerda $[a]-asonioningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+[-\sqrt{22}]+\dots+[-\sqrt{40}]$

A) −62 **B)** −50 **C)** −124 **D)** −105

25. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

26. Hisodblang: $\sqrt{11} \bullet (\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\dots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 33 **B)** 44 **C)** 22 **D)** 11

27. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}}-y^{\frac{1}{3}}) \bullet \frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 6 **B)** 5 **C)** 8 **D)** 4

28. $\frac{\sqrt{0,5}}{\sqrt{2,4}} \bullet (\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}}) \cdot \frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) 5 **B)** 2 **C)** 1 **D)** $\sqrt{24}$

29. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{4}$
B) $\sqrt[3]{16}+1$
C) $(\sqrt[3]{4}+1)^2$
D) $-(\sqrt[3]{4}+1)^2$

30. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 10 **B)** 18 **C)** 16 **D)** 20

31. 4+2 $\sqrt{2}$ somiga teskari sonni toping.

A) $-4-2\sqrt{2}$ **B)** $4-2\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** 0,5−0,25 $\sqrt{2}$

32. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\dots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 2 **B)** 7 **C)** 5 **D)** 3

33. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $6\sqrt{2}$ **B)** $-6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $4\sqrt{5}$

34. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6 $\sqrt{3}$ **B)** 3 **C)** 6+ $\sqrt{3}$ **D)** 6

35. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 12 **B)** $6\sqrt{3}$ **C)** 5−3 $\sqrt{3}$ **D)** 10

36. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) −124 **B)** −105 **C)** −62 **D)** −50

37. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 1 **B)** $\sqrt{4}$ **C)** 25 **D)** 5

38. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 2 **B)** 3 **C)** 1 **D)** 4

39. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}+\frac{1}{n+1}$
D) $1+\frac{1}{n}-\frac{1}{n+1}$

40. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) 2 **B)** $\sqrt{6}$ **C)** 2 $\sqrt{3}$ **D)** 2 $\sqrt{2}$

41. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 4 **B)** 3 **C)** 1 **D)** 2

42. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** $\sqrt{2}-1$ **C)** $\sqrt{2}+1$ **D)** 2

43. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** $\sqrt{2}-1$ **C)** 2 **D)** 1

44. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 5 **B)** $\sqrt{4}$ **C)** 1 **D)** 25

45. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 5 **B)** 7 **C)** 3 **D)** 2

46. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2\left(a^2-a+1\right)+a^2(a+1)+1}--\sqrt{a^2\left(a^2+a-1\right)-a^2(a+1)+1}$

A) $2-2a^2$ **B)** $2a^2$ **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** 2

47. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

48. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt{2}$
B) 2 O'quvchilarim mazza qilsin: 2-Variant
C) $\sqrt[6]{2}$
D) $\sqrt[3]{2}$

49. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 3 **B)** 0 **C)** -1 **D)** 1

50. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet\left(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}}\right)\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=$?

A) 5 **B)** 2 **C)** 1 **D)** $\sqrt{24}$

51. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 1 **B)** 0 **C)** 1 **D)** 3

52. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-6\sqrt{2}$ **B)** $6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $4\sqrt{5}$

53. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1 **B)** 1,5 **C)** 0,25 $\sqrt[3]{65}$ **D)** $\sqrt[3]{2}$

54. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $\sqrt[3]{2}$ **B)** 1,5 **C)** 0,25 $\sqrt[3]{65}$ **D)** 1

55. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) −240 **B)** −120 **C)** −480 **D)** −60

56. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** 3 **C)** 1 **D)** cheksiz ko'p

57. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 4 **B)** 5 **C)** 3 **D)** 8

58. Hisoblang: $\left(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}}\right)\bullet\left(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}}\right)$

A) −120 **B)** −480 **C)** −240 **D)** −60

59. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=$?

A) $\sqrt{2}+1$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+\sqrt{5}$
D) $\sqrt{2}+\sqrt{3}$

60. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 12 **B)** 5−3 $\sqrt{3}$ **C)** 10 **D)** $6\sqrt{3}$

O'quvchi 16 (7-A)

Variant: 842251FC • Matematika • 7-A

1. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{7}$
B) $2\sqrt{14}$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $-2(\sqrt{7}+2\sqrt{3})$

2. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 8 **C)** 5 **D)** 4

3. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 2 **B)** 1 **C)** 4 **D)** 3

4. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

5. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=?$

A) $6\sqrt{2}$ **B)** $-4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $4\sqrt{5}$

6. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6+ $\sqrt{3}$ **B)** $6\sqrt{3}$ **C)** 3 **D)** 6

7. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** $2\sqrt{3}$ **C)** $2\sqrt{2}$ **D)** 2

8. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $-(\sqrt[3]{4}+1)^2$
B) $(\sqrt[3]{4}+1)^2$
C) $\sqrt[3]{16}+1$
D) $\sqrt[3]{4}$

9. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

10. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 11 **B)** 1 **C)** $\sqrt{30}$ **D)** 0

11. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 44 **B)** 11 **C)** 22 **D)** 33

12. bu yerda $[a]-asoniningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+[-\sqrt{22}]+\ldots+[-\sqrt{40}]$

A) -105 **B)** -62 **C)** -50 **D)** -124

13. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 5 **B)** 3 **C)** 4 **D)** 8

14. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 0,25 $\sqrt[3]{65}$ **B)** $\sqrt[3]{2}$ **C)** 1 **D)** 1,5

15. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) 2 **B)** $\sqrt{2}$ **C)** $\frac{\sqrt{2}}{2}$ **D)** $\frac{\sqrt{6}}{3}$

16. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{6}}{3}$ **B)** $\sqrt{2}$ **C)** 2 **D)** $\frac{\sqrt{2}}{2}$

17. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 2 **B)** 5 **C)** 3 **D)** 7

18. 4+2 $\sqrt{2}$ somiga teskari sonni toping.

A) 4−2 $\sqrt{2}$ **B)** −4−2 $\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** 0,5−0,25 $\sqrt{2}$

19. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 12 **B)** $6\sqrt{3}$ **C)** 10 **D)** 5−3 $\sqrt{3}$

20. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) $\frac{1}{4-2\sqrt{2}}$ **B)** −4−2 $\sqrt{2}$ **C)** 4−2 $\sqrt{2}$ **D)** 0,5−0,25 $\sqrt{2}$

21. bu yerda $[a]-asoniningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+[-\sqrt{22}]+\ldots+[-\sqrt{40}]$

A) -105 **B)** -124 **C)** -50 **D)** -62

22. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2\sqrt{7}$
C) $2\sqrt{14}$
D) $2(2\sqrt{3}-\sqrt{7})$

23. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 25 **B)** 1 **C)** 5 **D)** $\sqrt{4}$

24. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2\ldots}}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 9 **B)** 8 **C)** 6 **D)** 7

25. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2\ldots}}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 9 **B)** 8 **C)** 7 **D)** 6

26. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})=?$

A) 6 **B)** 5 **C)** 4 **D)** 8

27. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-4\sqrt{5}$ **B)** $4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $6\sqrt{2}$

28. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 22 **B)** 44 **C)** 11 **D)** 33

29. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

30. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $-(\sqrt[3]{4}+1)^2$
B) $\sqrt[3]{16}+1$
C) $(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{4}$

31. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) $\sqrt{30}$ **B)** 11 **C)** 1 **D)** 0

32. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1-\frac{1}{n}-\frac{1}{n+1}$
C) $1+\frac{1}{n}+\frac{1}{n+1}$
D) $1-\frac{1}{n}+\frac{1}{n+1}$

33. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 0 **B)** 1 **C)** 1 **D)** 3

34. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{3}$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{5}$

35. Hisoblang: $(5^{5\sqrt{5}} \bullet \sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 25 **B)** 1 **C)** 5 **D)** $\sqrt{4}$

36. $\frac{\sqrt{0,5}}{\sqrt{2,4}} \bullet (\sqrt{\frac{1,2-0,7}{1,2+0,7}} + \sqrt{\frac{2,4+1,4}{2,4-1,4}}) \cdot \frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) $\sqrt{24}$ **B)** 2 **C)** 5 **D)** 1

37. Hisoblang: $(\frac{10}{\sqrt{6}+1} + \frac{2}{\sqrt{6}-2} - \frac{6}{3-\sqrt{6}}) \bullet (\sqrt{96} + \sqrt{(\frac{1}{24})^{-2}})$

A) −60 **B)** −240 **C)** −480 **D)** −120

38. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2} + 2$

A) 1 **B)** 0 **C)** 3 **D)** -1

39. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** 1 **C)** $\sqrt{2}-1$ **D)** 2

40. $x^2+y^2+z^2 = 6x+8y+10z-50$ bo'lsa, x ni toping.

A) 3 **B)** 1 **C)** 27 **D)** cheksiz ko'p

41. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}} = \sqrt[4]{a} + \sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 16 **B)** 20 **C)** 18 **D)** 10

42. A= $\sqrt{2} - \sqrt[3]{2}, B = \sqrt[3]{2} + \sqrt[6]{2} + 1$ va $C = \sqrt{2} - 1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt{2}$
B) $\sqrt[3]{2}$
C) $\sqrt[6]{2}$
D) 2 O'quvchilarim mazza qilsin: 2-Variant

43. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 1 **B)** 4 **C)** 2 **D)** 3

44. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}} + \frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** 2 **C)** $2\sqrt{2}$ **D)** $2\sqrt{3}$

45. $\sqrt{22-30\sqrt{4-2\sqrt{3}}} + 5 + 3\sqrt{3}$

A) $6\sqrt{3}$ **B)** 12 **C)** $5-3\sqrt{3}$ **D)** 10

46. Bunda x=8 va y= $2\sqrt{2}\ \frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}} - y^{\frac{1}{3}}) \bullet \frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}} \bullet (x^{\frac{1}{3}} + y^{\frac{1}{3}})$ =?

A) 5 **B)** 4 **C)** 8 **D)** 6

47. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}} : \frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

48. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 3 **B)** 7 **C)** 5 **D)** 2

49. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}} : \frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

50. $\frac{\sqrt{0,5}}{\sqrt{2,4}} \bullet (\sqrt{\frac{1,2-0,7}{1,2+0,7}} + \sqrt{\frac{2,4+1,4}{2,4-1,4}}) \cdot \frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) 2 **B)** 5 **C)** 1 **D)** $\sqrt{24}$

51. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}} = \sqrt[4]{a} + \sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 20 **C)** 10 **D)** 16

52. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1 - \frac{1}{n} + \frac{1}{n+1}$
B) $1 + \frac{1}{n} + \frac{1}{n+1}$
C) $1 + \frac{1}{n} - \frac{1}{n+1}$
D) $1 - \frac{1}{n} - \frac{1}{n+1}$

53. Hisoblang: $(\frac{10}{\sqrt{6}+1} + \frac{2}{\sqrt{6}-2} - \frac{6}{3-\sqrt{6}}) \bullet (\sqrt{96} + \sqrt{(\frac{1}{24})^{-2}})$

A) −120 **B)** −480 **C)** −240 **D)** −60

54. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** 1 **C)** 2 **D)** $\sqrt{2}-1$

55. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** $6+\sqrt{3}$ **C)** $6\sqrt{3}$ **D)** 6

56. $a = \pi - e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1} - -\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) 2 **B)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **C)** $2a^2$ **D)** $2-2a^2$

57. $a = \pi - e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1} - -\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) 2 **B)** $2-2a^2$ **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** $2a^2$

58. $x^2+y^2+z^2 = 6x+8y+10z-50$ bo'lsa, x ni toping.

A) 3 **B)** cheksiz ko'p **C)** 1 **D)** 27

59. $\sqrt{8+2\sqrt{10+2\sqrt{5}}} + \sqrt{8-2\sqrt{10+2\sqrt{5}}}$ =?

A) $\sqrt{2}+\sqrt{3}$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+\sqrt{5}$
D) $\sqrt{2}+1$

60. Hisoblang: $\sqrt[3]{5+2\sqrt{13}} + \sqrt[3]{5-2\sqrt{13}}$

A) $\sqrt[3]{2}$ **B)** $0,25\sqrt[3]{65}$ **C)** 1 **D)** 1,5

O'quvchi 17 (7-A)

Variant: C1345E69 • Matematika • 7-A

1. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** $6\sqrt{3}$ **C)** 6 **D)** 6+ $\sqrt{3}$

2. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 0,25 $\sqrt[3]{65}$ **B)** 1,5 **C)** 1 **D)** $\sqrt[3]{2}$

3. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}$ =?

A) $-4\sqrt{5}$ **B)** $4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $6\sqrt{2}$

4. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 44 **B)** 22 **C)** 33 **D)** 11

5. Bunda x=8 va y= 2 $\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet$ $(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 8 **B)** 6 **C)** 4 **D)** 5

6. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) 4−2 $\sqrt{2}$ **B)** −4−2 $\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** 0,5−0,25 $\sqrt{2}$

7. $a=\pi-e$, bo'lsa ifodani soddalashtiring.

$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2-2a^2$ **B)** $2a^2$ **C)** 2 **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

8. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 4 **B)** 1 **C)** 2 **D)** 3

9. $a=\pi-e$, bo'lsa ifodani soddalashtiring.

$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $\sqrt{a^4+1}-\sqrt{a^4-1}$ **B)** $2a^2$ **C)** 2 **D)** $2-2a^2$

10. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}$ =?

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+\sqrt{10}$
D) $\sqrt{2}+1$

11. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1,5 **B)** $\sqrt[3]{2}$ **C)** 0,25 $\sqrt[3]{65}$ **D)** 1

12. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

13. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $6\sqrt{3}$ **B)** 10 **C)** 12 **D)** 5−3 $\sqrt{3}$

14. 4+2 $\sqrt{2}$ somiga teskari sonni toping.

A) 4−2 $\sqrt{2}$ **B)** −4−2 $\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** 0,5−0,25 $\sqrt{2}$

15. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{6}}{3}$ **B)** $\sqrt{2}$ **C)** $\frac{\sqrt{2}}{2}$ **D)** 2

16. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

17. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})^{-1}}$

A) 1 **B)** 0 **C)** $\sqrt{30}$ **D)** 11

18. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 2 **B)** 3 **C)** 5 **D)** 7

19. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 25 **B)** $\sqrt{4}$ **C)** 5 **D)** 1

20. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2\sqrt{7}$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $2\sqrt{14}$

21. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** $2\sqrt{3}$ **C)** $2\sqrt{2}$ **D)** 2

22. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 8 **B)** 3 **C)** 5 **D)** 4

23. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 10 **B)** 20 **C)** 18 **D)** 16

24. bu yerda $[a]-asoniningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+$ $[-\sqrt{22}]+\ldots+[-\sqrt{40}]$

A) −62 **B)** −50 **C)** −124 **D)** −105

25. bu yerda $[a]-asoniningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+$ $[-\sqrt{22}]+\ldots+[-\sqrt{40}]$

A) −50 **B)** −105 **C)** −62 **D)** −124

26. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 11 **B)** 44 **C)** 33 **D)** 22

27. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 5−3 $\sqrt{3}$ **B)** 10 **C)** 12 **D)** $6\sqrt{3}$

28. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 1 **B)** $\sqrt{4}$ **C)** 25 **D)** 5

29. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{(\frac{1}{24})^{-2}})$

A) −240 **B)** −60 **C)** −480 **D)** −120

30. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) 2 O'quvchilarim mazza qilsin: 2-Variant
B) $\sqrt{2}$
C) $\sqrt[6]{2}$
D) $\sqrt[3]{2}$

31. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 3 **B)** 5 **C)** 8 **D)** 4

32. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1-\frac{1}{n}+\frac{1}{n+1}$
C) $1+\frac{1}{n}+\frac{1}{n+1}$
D) $1-\frac{1}{n}-\frac{1}{n+1}$

33. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** 2 **C)** $\sqrt{2}-1$ **D)** 1

34. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** 2 **C)** $\sqrt{2}+1$ **D)** $\sqrt{2}-1$

35. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{3}$ **B)** 2 **C)** $2\sqrt{2}$ **D)** $\sqrt{6}$

36. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{16}+1$
B) $-(\sqrt[3]{4}+1)^2$
C) $\sqrt[3]{4}$
D) $(\sqrt[3]{4}+1)^2$

37. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{(\frac{1}{24})^{-2}})$

A) -60 **B)** -120 **C)** -480 **D)** -240

38. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{14}$
B) $2(2\sqrt{3}-\sqrt{7})$
C) $2\sqrt{7}$
D) $-2(\sqrt{7}+2\sqrt{3})$

39. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-4\sqrt{5}$ **B)** $-6\sqrt{2}$ **C)** $4\sqrt{5}$ **D)** $6\sqrt{2}$

40. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

41. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 1 **B)** 0 **C)** 3 **D)** 1

42. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

43. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 0 **B)** -1 **C)** 1 **D)** 3

44. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\dots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\dots}}}=?$

A) 8 **B)** 9 **C)** 7 **D)** 6

45. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 11 **B)** 0 **C)** $\sqrt{30}$ **D)** 1

46. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6 **B)** 3 **C)** 6+ $\sqrt{3}$ **D)** $6\sqrt{3}$

47. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 2 **B)** 1 **C)** $\sqrt{24}$ **D)** 5

48. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}+\frac{1}{n+1}$
D) $1-\frac{1}{n}-\frac{1}{n+1}$

49. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2\dots}}}}+\sqrt{30+\sqrt{30+\sqrt{30+\dots}}}=?$

A) 9 **B)** 7 **C)** 6 **D)** 8

50. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 16 **C)** 10 **D)** 20

51. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) cheksiz ko'p **B)** 27 **C)** 1 **D)** 3

52. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{6}}{3}$ **B)** $\frac{\sqrt{2}}{2}$ **C)** $\sqrt{2}$ **D)** 2

53. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 1 **C)** 4 **D)** 2

54. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $-(\sqrt[3]{4}+1)^2$
B) $\sqrt[3]{4}$
C) $(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{16}+1$

55. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** 1 **C)** cheksiz ko'p **D)** 3

56. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) $\sqrt{24}$ **B)** 2 **C)** 1 **D)** 5

57. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

58. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\dots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 5 **B)** 3 **C)** 7 **D)** 2

59. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{3}$
B) $\sqrt{2}+1$
C) $\sqrt{2}+\sqrt{10}$
D) $\sqrt{2}+\sqrt{5}$

60. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})=?$

A) 5 **B)** 4 **C)** 8 **D)** 6

O'quvchi 18 (7-A)

Variant: 3AE07CE9 • Matematika • 7-A

1. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 1 **B)** 11 **C)** 0 **D)** $\sqrt{30}$

2. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 25 **B)** 1 **C)** $\sqrt{4}$ **D)** 5

3. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}+\frac{1}{n+1}$
B) $1-\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}-\frac{1}{n+1}$
D) $1+\frac{1}{n}-\frac{1}{n+1}$

4. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\sqrt{2}$ **B)** 2 **C)** $\frac{\sqrt{2}}{2}$ **D)** $\frac{\sqrt{6}}{3}$

5. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 3 **B)** 7 **C)** 2 **D)** 5

6. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 16 **B)** 18 **C)** 20 **D)** 10

7. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}$ =?

A) $\sqrt{2}+1$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+\sqrt{5}$
D) $\sqrt{2}+\sqrt{3}$

8. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 10 **B)** 12 **C)** $5-3\sqrt{3}$ **D)** $6\sqrt{3}$

9. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 8 **B)** 4 **C)** 6 **D)** 5

10. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** 6 **C)** $6\sqrt{3}$ **D)** $6+\sqrt{3}$

11. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) −60 **B)** −480 **C)** −120 **D)** −240

12. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 1 **B)** $\sqrt{4}$ **C)** 5 **D)** 25

13. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{16}+1$
B) $-(\sqrt[3]{4}+1)^2$
C) $\sqrt[3]{4}$
D) $(\sqrt[3]{4}+1)^2$

14. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

15. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) cheksiz ko'p **B)** 1 **C)** 3 **D)** 27

16. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) −60 **B)** −120 **C)** −240 **D)** −480

17. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 4 **B)** 5 **C)** 6 **D)** 8

18. bu yerda $[a]-asoniningbutunqismi$ $[-\sqrt{20}]+[-\sqrt{21}]+[-\sqrt{22}]+\ldots+[-\sqrt{40}]$

A) −50 **B)** −62 **C)** −105 **D)** −124

19. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 3 **B)** $6+\sqrt{3}$ **C)** 6 **D)** $6\sqrt{3}$

20. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** 2 **C)** $\sqrt{2}+1$ **D)** $\sqrt{2}-1$

21. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) 2 **B)** $2-2a^2$ **C)** $2a^2$ **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

22. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}$ =?

A) 6 **B)** 9 **C)** 8 **D)** 7

23. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 4 **B)** 3 **C)** 5 **D)** 8

24. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt{2}$
B) $\sqrt[6]{2}$
C) 2 O'quvchilarim mazza qilsin: 2-Variant
D) $\sqrt[3]{2}$

25. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 8 **B)** 4 **C)** 5 **D)** 3

26. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** 3 **C)** cheksiz ko'p **D)** 1

27. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) 2 **B)** $2\sqrt{2}$ **C)** $2\sqrt{3}$ **D)** $\sqrt{6}$

28. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) 2 **B)** $\sqrt{6}$ **C)** $2\sqrt{3}$ **D)** $2\sqrt{2}$

29. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $6\sqrt{2}$ **B)** $-6\sqrt{2}$ **C)** $-4\sqrt{5}$ **D)** $4\sqrt{5}$

30. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

31. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}+\frac{1}{n+1}$
B) $1+\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}-\frac{1}{n+1}$
D) $1+\frac{1}{n}-\frac{1}{n+1}$

32. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) 2 **B)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **C)** $2-2a^2$ **D)** $2a^2$

33. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 4 **C)** 1 **D)** 2

34. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}} : \frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

35. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}} + \frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}} =$

A) $\frac{\sqrt{2}}{2}$ **B)** $\sqrt{2}$ **C)** $\frac{\sqrt{6}}{3}$ **D)** 2

36. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 12 **B)** $5-3\sqrt{3}$ **C)** 10 **D)** $6\sqrt{3}$

37. Hisodblang: $\sqrt{11} \bullet (\frac{1}{1+\sqrt{2}} + \frac{1}{\sqrt{2}+\sqrt{3}} + \ldots + \frac{1}{\sqrt{98}+\sqrt{99}} + 1)$

A) 22 **B)** 44 **C)** 33 **D)** 11

38. $4+2\sqrt{2}$ soniga teskari sonni toping.

A) $0{,}5-0{,}25\sqrt{2}$ **B)** $4-2\sqrt{2}$ **C)** $-4-2\sqrt{2}$ **D)** $\frac{1}{4-2\sqrt{2}}$

39. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}} - \frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}} + \sqrt[3]{4}$

A) $-(\sqrt[3]{4}+1)^2$
B) $(\sqrt[3]{4}+1)^2$
C) $\sqrt[3]{16}+1$
D) $\sqrt[3]{4}$

40. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}} - \frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

41. $\sqrt{\sqrt{241+44\sqrt{30}}} - (\sqrt{6}-\sqrt{5})^{-1}$

A) 1 **B)** 0 **C)** $\sqrt{30}$ **D)** 11

42. bu yerda $[a] - asoniningbutunqismi$ $[-\sqrt{20}] + [-\sqrt{21}] + [-\sqrt{22}] + \ldots + [-\sqrt{40}]$

A) -105 **B)** -50 **C)** -124 **D)** -62

43. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** $\sqrt{2}+1$ **C)** 2 **D)** $\sqrt{2}-1$

44. $\frac{\sqrt{0{,}5}}{\sqrt{2{,}4}} \bullet (\sqrt{\frac{1{,}2-0{,}7}{1{,}2+0{,}7}} + \sqrt{\frac{2{,}4+1{,}4}{2{,}4-1{,}4}}) \cdot \frac{\sqrt{1{,}5+0{,}4}}{\sqrt{0{,}9+1{,}5}} = ?$

A) $\sqrt{24}$ **B)** 2 **C)** 5 **D)** 1

45. Hisoblang: $\sqrt{\frac{13-6\sqrt{4{,}(6)}}{3+6\sqrt{0{,}(22)}}} - \sqrt{\frac{13+6\sqrt{4{,}(6)}}{3-6\sqrt{0{,}(22)}}}$

A) $2\sqrt{7}$
B) $2\sqrt{14}$
C) $-2(\sqrt{7}+2\sqrt{3})$
D) $2(2\sqrt{3}-\sqrt{7})$

46. Hisoblang: $\sqrt[3]{5+2\sqrt{13}} + \sqrt[3]{5-2\sqrt{13}}$

A) 1 **B)** $\sqrt[3]{2}$ **C)** $0{,}25\sqrt[3]{65}$ **D)** 1,5

47. $\frac{\sqrt{0{,}5}}{\sqrt{2{,}4}} \bullet (\sqrt{\frac{1{,}2-0{,}7}{1{,}2+0{,}7}} + \sqrt{\frac{2{,}4+1{,}4}{2{,}4-1{,}4}}) \cdot \frac{\sqrt{1{,}5+0{,}4}}{\sqrt{0{,}9+1{,}5}} = ?$

A) 2 **B)** 1 **C)** 5 **D)** $\sqrt{24}$

48. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}} - \frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

49. $4+2\sqrt{2}$ somiga teskari sonni toping.

A) $\frac{1}{4-2\sqrt{2}}$ **B)** $0{,}5-0{,}25\sqrt{2}$ **C)** $-4-2\sqrt{2}$ **D)** $4-2\sqrt{2}$

50. Hisoblang: $\sqrt{\frac{13-6\sqrt{4{,}(6)}}{3+6\sqrt{0{,}(22)}}} - \sqrt{\frac{13+6\sqrt{4{,}(6)}}{3-6\sqrt{0{,}(22)}}}$

A) $2(2\sqrt{3}-\sqrt{7})$
B) $-2(\sqrt{7}+2\sqrt{3})$
C) $2\sqrt{14}$
D) $2\sqrt{7}$

51. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2} + 2$

A) 1 **B)** 0 **C)** 3 **D)** 1

52. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2} + 2$

A) -1 **B)** 3 **C)** 0 **D)** 1

53. Hisoblang: $\sqrt[3]{5+2\sqrt{13}} + \sqrt[3]{5-2\sqrt{13}}$

A) $\sqrt[3]{2}$ **B)** 1 **C)** $0{,}25\sqrt[3]{65}$ **D)** 1,5

54. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 2 **C)** 1 **D)** 4

55. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}} = \sqrt[4]{a} + \sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 10 **C)** 20 **D)** 16

56. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}} + \sqrt{30+\sqrt{30+\sqrt{30+\ldots}}} = ?$

A) 9 **B)** 7 **C)** 6 **D)** 8

57. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2} - \sqrt{9x^2-12xy+4y^2} =$?

A) $-4\sqrt{5}$ **B)** $4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $6\sqrt{2}$

58. $\sqrt{8+2\sqrt{10+2\sqrt{5}}} + \sqrt{8-2\sqrt{10+2\sqrt{5}}} = ?$

A) $\sqrt{2}+\sqrt{10}$
B) $\sqrt{2}+\sqrt{5}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{3}$

59. Hisodblang: $\sqrt{11} \bullet (\frac{1}{1+\sqrt{2}} + \frac{1}{\sqrt{2}+\sqrt{3}} + \ldots + \frac{1}{\sqrt{98}+\sqrt{99}} + 1)$

A) 33 **B)** 44 **C)** 11 **D)** 22

60. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 5 **B)** 7 **C)** 3 **D)** 2

O'quvchi 19 (7-A)

Variant: 0D970E41 • Matematika • 7-A

1. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) $\sqrt[6]{2}$
B) $\sqrt{2}$
C) $\sqrt[3]{2}$
D) 2 O'quvchilarim mazza qilsin: 2-Variant

2. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{4}$
B) $\sqrt[3]{16}+1$
C) $-(\sqrt[3]{4}+1)^2$
D) $(\sqrt[3]{4}+1)^2$

3. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 2 **B)** 5 **C)** 3 **D)** 7

4. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 22 **B)** 33 **C)** 44 **D)** 11

5. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** 2 **C)** $\sqrt{2}-1$ **D)** 1

6. bu yerda $[a]-asonininginbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) −124 **B)** −50 **C)** −105 **D)** −62

7. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{7}$
B) $-2(\sqrt{7}+2\sqrt{3})$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $2\sqrt{14}$

8. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 4 **B)** 3 **C)** 8 **D)** 5

9. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) $\sqrt{4}$ **B)** 25 **C)** 1 **D)** 5

10. $\sqrt{22-30\sqrt{4-2\sqrt{3}}+5+3\sqrt{3}}$

A) 10 **B)** $6\sqrt{3}$ **C)** $5-3\sqrt{3}$ **D)** 12

11. $\sqrt{\sqrt{241+44\sqrt{30}}-(\sqrt{6}-\sqrt{5})^{-1}}$

A) 11 **B)** 1 **C)** 0 **D)** $\sqrt{30}$

12. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

13. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 25 **B)** 5 **C)** 1 **D)** $\sqrt{4}$

14. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $0{,}25\sqrt[3]{65}$ **B)** $\sqrt[3]{2}$ **C)** 1 **D)** 1,5

15. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{10}$
B) $\sqrt{2}+\sqrt{5}$
C) $\sqrt{2}+\sqrt{3}$
D) $\sqrt{2}+1$

16. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) cheksiz ko'p **B)** 1 **C)** 3 **D)** 27

17. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) $\sqrt{24}$ **B)** 1 **C)** 5 **D)** 2

18. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{4}$
B) $(\sqrt[3]{4}+1)^2$
C) $-(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{16}+1$

19. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1-\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}-\frac{1}{n+1}$
D) $1+\frac{1}{n}+\frac{1}{n+1}$

20. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-4\sqrt{5}$ **B)** $-6\sqrt{2}$ **C)** $6\sqrt{2}$ **D)** $4\sqrt{5}$

21. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2\ldots}}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 7 **B)** 6 **C)** 8 **D)** 9

22. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) $0{,}25\sqrt[3]{65}$ **B)** 1,5 **C)** 1 **D)** $\sqrt[3]{2}$

23. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 16 **C)** 20 **D)** 10

24. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

A) 2 **B)** $2\sqrt{3}$ **C)** $-2\sqrt{3}$ **D)** −2

25. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) -1 **B)** 1 **C)** 0 **D)** 3

26. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) $6+\sqrt{3}$ **B)** $6\sqrt{3}$ **C)** 6 **D)** 3

27. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

28. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})=?$

A) 6 **B)** 4 **C)** 5 **D)** 8

29. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 4 **B)** 2 **C)** 1 **D)** 3

30. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})=?$

A) 5 **B)** 4 **C)** 8 **D)** 6

31. bu yerda $[a]-asonininginbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) −50 **B)** −62 **C)** −124 **D)** −105

32. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 4 **B)** 8 **C)** 3 **D)** 5

33. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 1 **B)** 4 **C)** 2 **D)** 3

34. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) $6\sqrt{3}$ **B)** $5-3\sqrt{3}$ **C)** 12 **D)** 10

35. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{2}}{2}$ **B)** 2 **C)** $\sqrt{2}$ **D)** $\frac{\sqrt{6}}{3}$

36. $4+2\sqrt{2}$ somiga teskari sonni toping.

A) $-4-2\sqrt{2}$ **B)** $0{,}5-0{,}25\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** $4-2\sqrt{2}$

37. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{14}$
B) $-2(\sqrt{7}+2\sqrt{3})$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $2\sqrt{7}$

38. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

39. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{3}$ **B)** 2 **C)** $2\sqrt{2}$ **D)** $\sqrt{6}$

40. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 0 **B)** 1 **C)** 3 **D)** 1

41. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) -120 **B)** -60 **C)** -480 **D)** -240

42. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}=?$

A) 1 **B)** $\sqrt{24}$ **C)** 5 **D)** 2

43. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-6\sqrt{2}$ **B)** $4\sqrt{5}$ **C)** $-4\sqrt{5}$ **D)** $6\sqrt{2}$

44. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\dots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\dots}}}=?$

A) 8 **B)** 7 **C)** 6 **D)** 9

45. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\dots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\dots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** $\sqrt{2}+1$ **C)** $\sqrt{2}-1$ **D)** 2

46. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 10 **C)** 20 **D)** 16

47. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

48. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) -120 **B)** -240 **C)** -480 **D)** -60

49. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}+\frac{1}{n+1}$
B) $1-\frac{1}{n}+\frac{1}{n+1}$
C) $1+\frac{1}{n}-\frac{1}{n+1}$
D) $1-\frac{1}{n}-\frac{1}{n+1}$

50. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+\sqrt{10}$
C) $\sqrt{2}+1$
D) $\sqrt{2}+\sqrt{3}$

51. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 1 **B)** $\sqrt{30}$ **C)** 0 **D)** 11

52. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) 2 **B)** $\sqrt{2}$ **C)** $\frac{\sqrt{6}}{3}$ **D)** $\frac{\sqrt{2}}{2}$

53. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** $2\sqrt{2}$ **C)** 2 **D)** $2\sqrt{3}$

54. $4+2\sqrt{2}$ soniga teskari sonni toping.

A) $-4-2\sqrt{2}$ **B)** $0{,}5-0{,}25\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** $4-2\sqrt{2}$

55. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\dots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 2 **B)** 3 **C)** 7 **D)** 5

56. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) 2 **B)** $2-2a^2$ **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** $2a^2$

57. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $\sqrt{a^4+1}-\sqrt{a^4-1}$ **B)** 2 **C)** $2-2a^2$ **D)** $2a^2$

58. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 1 **B)** 27 **C)** cheksiz ko'p **D)** 3

59. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6 **B)** 3 **C)** $6\sqrt{3}$ **D)** $6+\sqrt{3}$

60. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\dots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 22 **B)** 33 **C)** 44 **D)** 11

O'quvchi 20 (7-A)

Variant: 9381F3DE • Matematika • 7-A

1. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 3 **B)** 1 **C)** -1 **D)** 0

2. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 2 **B)** 1 **C)** 3 **D)** 4

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

A) $\sqrt{2}$ **B)** $\frac{\sqrt{2}}{2}$ **C)** $\frac{\sqrt{6}}{3}$ **D)** 2

4. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 11 **B)** 22 **C)** 44 **D)** 33

5. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$

6. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 7 **B)** 3 **C)** 2 **D)** 5

7. $\frac{\sqrt{1}\bullet\sqrt{2}\bullet\sqrt{3}\bullet\ldots\bullet\sqrt{10}}{\sqrt{x}}$ kasr ratsional son bo'lishi uchun x quyidagilarning qaysi biriga teng.

A) 7 **B)** 2 **C)** 5 **D)** 3

8. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\ldots+\left[-\sqrt{40}\right]$

A) -105 **B)** -124 **C)** -50 **D)** -62

9. Bunda x=8 va y= $2\sqrt{2}\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 8 **B)** 4 **C)** 6 **D)** 5

10. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6 **B)** 3 **C)** $6\sqrt{3}$ **D)** $6+\sqrt{3}$

11. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\ldots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\ldots}}}=?$

A) 8 **B)** 6 **C)** 9 **D)** 7

12. ikki sonning yig'indisi $\sqrt{6}ga$, ayirmasi $\sqrt{10}$ ga teng. ularning ko'paytmasi ikkidan qanchaga kam?

A) 3 **B)** 2 **C)** 1 **D)** 4

13. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $\sqrt{6}$ **B)** $2\sqrt{3}$ **C)** 2 **D)** $2\sqrt{2}$

14. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 12 **B)** $5-3\sqrt{3}$ **C)** 10 **D)** $6\sqrt{3}$

15. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) $\sqrt{2}+1$ **B)** $\sqrt{2}-1$ **C)** 1 **D)** 2

16. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) $2a^2$ **B)** 2 **C)** $2-2a^2$ **D)** $\sqrt{a^4+1}-\sqrt{a^4-1}$

17. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $6\sqrt{2}$ **B)** $-4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $4\sqrt{5}$

18. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{5}$
B) $\sqrt{2}+\sqrt{3}$
C) $\sqrt{2}+\sqrt{10}$
D) $\sqrt{2}+1$

19. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1-\frac{1}{n}+\frac{1}{n+1}$
B) $1-\frac{1}{n}-\frac{1}{n+1}$
C) $1+\frac{1}{n}+\frac{1}{n+1}$
D) $1+\frac{1}{n}-\frac{1}{n+1}$

20. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $2\sqrt{14}$
B) $-2(\sqrt{7}+2\sqrt{3})$
C) $2(2\sqrt{3}-\sqrt{7})$
D) $2\sqrt{7}$

21. Soddalashtiring: $\frac{x\sqrt{y}-3y\sqrt{x}-4y\sqrt{y}}{x\sqrt{x}+4x\sqrt{y}+3y\sqrt{x}}:\frac{y\sqrt{y}-x\sqrt{y}}{x\sqrt{x}+2x\sqrt{y}-3y\sqrt{x}}$

A) $\frac{\sqrt{y}-3\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
B) $\frac{4\sqrt{y}-\sqrt{x}}{\sqrt{y}+\sqrt{x}}$
C) $\frac{3\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$
D) $\frac{\sqrt{y}+\sqrt{x}}{\sqrt{y}-\sqrt{x}}$

22. $4+2\sqrt{2}$ somiga teskari sonni toping.

A) $\frac{1}{4-2\sqrt{2}}$ **B)** $0{,}5-0{,}25\sqrt{2}$ **C)** $4-2\sqrt{2}$ **D)** $-4-2\sqrt{2}$

23. Hisoblang: $\frac{\sqrt{5-3\sqrt{2,(6)}}}{\sqrt{2}}+\frac{\sqrt{5+3\sqrt{2,(6)}}}{\sqrt{2}}$

A) $2\sqrt{3}$ **B)** $2\sqrt{2}$ **C)** 2 **D)** $\sqrt{6}$

24. Hisoblang: $\left(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}}\right)^{\left(\frac{\sqrt{5}}{2}\right)^{-2}}$

A) 1 **B)** 25 **C)** 5 **D)** $\sqrt{4}$

25. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

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

26. Hisodblang: $\sqrt{11}\bullet(\frac{1}{1+\sqrt{2}}+\frac{1}{\sqrt{2}+\sqrt{3}}+\ldots+\frac{1}{\sqrt{98}+\sqrt{99}}+1)$

A) 33 **B)** 11 **C)** 22 **D)** 44

27. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 16 **B)** 18 **C)** 10 **D)** 20

28. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{4}$
B) $(\sqrt[3]{4}+1)^2$
C) $-(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{16}+1$

29. $a=\pi-e$, bo'lsa ifodani soddalashtiring.
$\sqrt{a^2(a^2-a+1)+a^2(a+1)+1}--\sqrt{a^2(a^2+a-1)-a^2(a+1)+1}$

A) 2 **B)** $2a^2$ **C)** $\sqrt{a^4+1}-\sqrt{a^4-1}$ **D)** $2-2a^2$

30. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** 3 **C)** 1 **D)** cheksiz ko'p

31. $\frac{\sqrt{10+\sqrt{1}}+\sqrt{10+\sqrt{2}}+\ldots+\sqrt{10+\sqrt{99}}}{\sqrt{10-\sqrt{1}}+\sqrt{10-\sqrt{2}}+\ldots+\sqrt{10-\sqrt{99}}}$ ni hisoblang.

A) 1 **B)** $\sqrt{2}+1$ **C)** $\sqrt{2}-1$ **D)** 2

32. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{\left(\frac{1}{24}\right)^{-2}})$

A) -240 **B)** -60 **C)** -480 **D)** -120

33. Hisoblang: $\frac{3}{2\sqrt[3]{2}+2\sqrt[3]{4}}-\frac{3}{2\sqrt[3]{2}-2\sqrt[3]{4}}+\sqrt[3]{4}$

A) $\sqrt[3]{4}$
B) $-(\sqrt[3]{4}+1)^2$
C) $(\sqrt[3]{4}+1)^2$
D) $\sqrt[3]{16}+1$

34. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 4 **B)** 8 **C)** 3 **D)** 5

35. x= $\sqrt{2}$ va y= $\sqrt{5}$ bo'lsa, $\sqrt{9x^2+12xy+4y^2}-\sqrt{9x^2-12xy+4y^2}=$?

A) $-4\sqrt{5}$ **B)** $4\sqrt{5}$ **C)** $-6\sqrt{2}$ **D)** $6\sqrt{2}$

36. $\sqrt{\frac{n^4+2n^3+2n^2+2n+1}{n^2(n+1)^2}}$ ni soddalashtiring

A) $1+\frac{1}{n}-\frac{1}{n+1}$
B) $1+\frac{1}{n}+\frac{1}{n+1}$
C) $1-\frac{1}{n}+\frac{1}{n+1}$
D) $1-\frac{1}{n}-\frac{1}{n+1}$

37. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 11 **B)** 1 **C)** $\sqrt{30}$ **D)** 0

38. $\sqrt[3]{4\sqrt{2\sqrt[3]{4\sqrt{2}\dots}}}+\sqrt{30+\sqrt{30+\sqrt{30+\dots}}}=?$

A) 8 **B)** 7 **C)** 6 **D)** 9

39. Bunda x=8 va y= $2\sqrt{2}$ $\frac{x+y}{\sqrt[3]{x^2}-\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}-y^{\frac{1}{3}})\bullet\frac{x-y}{\sqrt[3]{x^2}+\sqrt[3]{xy}+\sqrt[3]{y^2}}\bullet(x^{\frac{1}{3}}+y^{\frac{1}{3}})$ =?

A) 5 **B)** 6 **C)** 4 **D)** 8

40. Hisoblang: $(5^{5\sqrt{5}}\bullet\sqrt{5^{5-10\sqrt{5}}})^{(\frac{\sqrt{5}}{2})^{-2}}$

A) 5 **B)** 1 **C)** $\sqrt{4}$ **D)** 25

41. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 0,25 $\sqrt[3]{65}$ **B)** 1 **C)** $\sqrt[3]{2}$ **D)** 1,5

42. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

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

43. Agar $\sqrt{4\sqrt{2}+2\sqrt{6}}=\sqrt[4]{a}+\sqrt[4]{b}$ bo'lsa, a+b ni toping.

A) 18 **B)** 20 **C)** 16 **D)** 10

44. $\sqrt{22-30\sqrt{4-2\sqrt{3}}}+5+3\sqrt{3}$

A) 10 **B)** 5−3 $\sqrt{3}$ **C)** 12 **D)** $6\sqrt{3}$

45. Hisoblang: $\sqrt{\frac{13-6\sqrt{4,(6)}}{3+6\sqrt{0,(22)}}}-\sqrt{\frac{13+6\sqrt{4,(6)}}{3-6\sqrt{0,(22)}}}$

A) $-2(\sqrt{7}+2\sqrt{3})$
B) $2(2\sqrt{3}-\sqrt{7})$
C) $2\sqrt{14}$
D) $2\sqrt{7}$

46. Hisoblang: $\sqrt[3]{5+2\sqrt{13}}+\sqrt[3]{5-2\sqrt{13}}$

A) 1,5 **B)** 1 **C)** 0,25 $\sqrt[3]{65}$ **D)** $\sqrt[3]{2}$

47. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa, x ni toping.

A) 27 **B)** 3 **C)** 1 **D)** cheksiz ko'p

48. A= $\sqrt{2}-\sqrt[3]{2}, B=\sqrt[3]{2}+\sqrt[6]{2}+1$ va $C=\sqrt{2}-1$ bo'lsa, $\frac{AB}{C}$ ning qiymatini toping.

A) 2 O'quvchilarim mazza qilsin: 2-Variant
B) $\sqrt{2}$
C) $\sqrt[3]{2}$
D) $\sqrt[6]{2}$

49. $\frac{2+\sqrt{3}}{\sqrt{2}+\sqrt{2+\sqrt{3}}}+\frac{2-\sqrt{3}}{\sqrt{2}-\sqrt{2-\sqrt{3}}}=$

A) $\frac{\sqrt{6}}{3}$ **B)** 2 **C)** $\sqrt{2}$ **D)** $\frac{\sqrt{2}}{2}$

50. Hisoblang: $(\frac{10}{\sqrt{6}+1}+\frac{2}{\sqrt{6}-2}-\frac{6}{3-\sqrt{6}})\bullet(\sqrt{96}+\sqrt{(\frac{1}{24})^{-2}})$

A) −120 **B)** −60 **C)** −480 **D)** −240

51. Hisoblang: $\frac{\sqrt{7}+\sqrt{5}}{\sqrt{28}+\sqrt{21}+\sqrt{20}+\sqrt{15}}-\frac{\sqrt{3}+\sqrt{5}}{\sqrt{20}-\sqrt{15}+\sqrt{12}-3}$

A) $2\sqrt{3}$ **B)** −2 **C)** 2 **D)** $-2\sqrt{3}$

52. x= n+ $\sqrt{n^2-16}; y=n-\sqrt{n^2-16}$ va y=2 bo'lsa, x va y ning o'rta arifmetigini toping.

A) 4 **B)** 3 **C)** 8 **D)** 5

53. bu yerda $[a]-asoniningbutunqismi$ $\left[-\sqrt{20}\right]+\left[-\sqrt{21}\right]+\left[-\sqrt{22}\right]+\dots+\left[-\sqrt{40}\right]$

A) −105 **B)** −50 **C)** −62 **D)** −124

54. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) 1 **B)** $\sqrt{24}$ **C)** 2 **D)** 5

55. 4+2 $\sqrt{2}$ soniga teskari sonni toping.

A) 0,5−0,25 $\sqrt{2}$ **B)** 4−2 $\sqrt{2}$ **C)** $\frac{1}{4-2\sqrt{2}}$ **D)** −4−2 $\sqrt{2}$

56. $\sqrt{8+2\sqrt{10+2\sqrt{5}}}+\sqrt{8-2\sqrt{10+2\sqrt{5}}}=?$

A) $\sqrt{2}+\sqrt{3}$
B) $\sqrt{2}+\sqrt{5}$
C) $\sqrt{2}+\sqrt{10}$
D) $\sqrt{2}+1$

57. Agar a=39 $-\sqrt{432}$ bo'lsa, $\sqrt{a}+\sqrt{3}$ ifodaning qiymatini toping.

A) 6+ $\sqrt{3}$ **B)** 3 **C)** 6 $\sqrt{3}$ **D)** 6

58. Soddalashtiring: $\frac{(a+2\sqrt{a}+1)(\sqrt{a}+\sqrt{b})(\sqrt{a}-\sqrt{b})}{(a-b)(\sqrt{a}+1)^2}+2$

A) 1 **B)** 1 **C)** 0 **D)** 3

59. $\frac{\sqrt{0,5}}{\sqrt{2,4}}\bullet(\sqrt{\frac{1,2-0,7}{1,2+0,7}}+\sqrt{\frac{2,4+1,4}{2,4-1,4}})\cdot\frac{\sqrt{1,5+0,4}}{\sqrt{0,9+1,5}}$ =?

A) 1 **B)** 5 **C)** $\sqrt{24}$ **D)** 2

60. $\sqrt{\sqrt{241+44\sqrt{30}}}-(\sqrt{6}-\sqrt{5})^{-1}$

A) 1 **B)** 11 **C)** $\sqrt{30}$ **D)** 0