\#1. Hisoblang.  
  
  
  
\[\sqrt[\text{3}]{\text{5}^{\left( \sqrt{\text{5}}\text{+1} \right)^{\text{2}}}\text{∙}\text{25}^{\text{-}\sqrt{\text{5}}}\text{-}\text{5}^{\text{6}}}\text{∙}\left( \sqrt{\text{5}^{\text{3}}}\text{-}\sqrt{\frac{\text{1}}{\text{125}}} \right)\text{:}\left( \sqrt{\text{5}}\text{-}\text{5}^{\text{-}\frac{\text{1}}{\text{2}}} \right)\]  
  
  
  
\includegraphics[width=3.27017in,height=1.34743in]{media/image1.png}  
  
  
  
A) \(155\)  
  
  
  
+B) 0  
  
  
  
C) \(50\)  
  
  
  
D) \(25\)  
  
  
  
\#2.\(\ \sin 7x + \cos^{2}2x = \sin^{2}2x + sinx\) tenglamani yeching.  
  
  
  
+A)\(\ \frac{\pi}{8} + \ \frac{\pi n}{4}\) ,  
  
\({( - 1)}^{n + 1}\frac{\pi}{18} + \ \frac{\pi n}{3}\ ,\ n \in z\)  
  
  
  
B) \(\frac{\pi}{8} + \ \frac{\pi n}{2}\) ,  
  
\({( - 1)}^{n}\frac{\pi}{18} + \ \frac{\pi n}{3},\ n \in z\)  
  
  
  
C) \(\frac{\pi n}{6}\) , \(n \in z\)  
  
  
  
D) \(\frac{\pi n}{3}\) , \(n \in z\)  
  
  
  
\#3. Bir guruh bolalar koptok olish uchun pul  
  
yig\textquotesingle ishmoqchi. Ular 4000 so\textquotesingle mdan pul  
  
yig\textquotesingle ishsa, koptok olish uchun 17000 so\textquotesingle m  
  
yetmay qoladi. Agar 7000 so\textquotesingle mdan pul  
  
yig\textquotesingle ishsa 34000 so\textquotesingle m ortiq pul  
  
to\textquotesingle planadi. Guruhdagi bolalar sonini aniqlang.  
  
  
  
A)10  
  
  
  
+B)17  
  
  
  
C)11  
  
  
  
D)8  
  
  
  
\#4. Tenglamani yeching: \({2x}^{3} + 5x^{2} - 4x - 3 = 0\)  
  
  
  
A) 1; -3; -2  
  
  
  
B) -1;-3;-0,5  
  
  
  
+C) 1;-3;-0,5  
  
  
  
D) 2;-1;-3  
  
  
  
\#5. \(x^{7} - 4x^{5} + {2x}^{3} - x\)+5 ko`phadni x-1 ga  
  
bo\textquotesingle lgandagi qoldiq nimaga teng?  
  
  
  
A) 2  
  
  
  
+B) 3  
  
  
  
C) 4  
  
  
  
D) 5  
  
  
  
\#6. Tengsizlikni qanoatlantiruvchi butun sonlar nechta\(?\)  
  
  
  
\[\frac{\left( \text{a-3} \right)\text{∙}\text{a}^{\text{2}}}{\left( \text{a-5} \right)^{\text{3}}\text{∙}\left( \text{a+3} \right)^{\text{4}}}\text{≤0}\]  
  
  
  
A) \(\ 2\)  
  
  
  
+B) \(\ 3\)  
  
  
  
C) \(\ 4\)  
  
  
  
D) \(\ \)cheksiz ko'p  
  
  
  
\#7. \(\left\{ \begin{array}{r}  
  
\frac{3}{x} + \frac{1}{y} + \frac{1}{z} = 7 \\  
  
\frac{1}{x} + \frac{3}{y} + \frac{1}{z} = 11 \\  
  
\frac{1}{x} + \frac{1}{y} + \frac{3}{z} = - 3  
  
\end{array} \right.\ \) bo'lsa, \(\frac{xyz}{xy + yz + xz}\) ni toping.  
  
  
  
A) 3 B) 0,4 C) \(\frac{5}{21}\ \) +D) 0,(3)  
  
  
  
\#8.\(\ f(x) = \sqrt{4 - \left| x^{2} - 5 \right|}\) funksiyaning  
  
aniqlanish sohasini toping.  
  
  
  
+A) \(\lbrack - 3; - 1\rbrack \cup \lbrack 1;3\rbrack\)  
  
  
  
B) \(\lbrack - 3;3\rbrack\)  
  
  
  
C) \(\lbrack 1;3\rbrack\)  
  
  
  
D)  
  
\(\left\lbrack - 3 \right.\ ;\left. \ - 1 \right) \cup \left( 1 \right.\ ;\left. \ 3 \right\rbrack\)  
  
  
  
\#9. Agar barcha x, y lar uchun  
  
\(x^{3} + {4x}^{2}y + axy^{2} + 3xy - bx^{c}y + 7xy^{2} + dxy + y^{2} = x^{3} + y^{2}\)  
  
ayniyat bajarilsa, \(|a + b + c|(b - c - d)\) ni toping.  
  
(c\textgreater{} 1)  
  
  
  
A) -4  
  
  
  
B) -2  
  
  
  
+C) 5  
  
  
  
D) 2  
  
  
  
\#10. Hisoblang.  
  
  
  
\[\text{2-}\frac{\text{1}}{\text{2-}\frac{\text{1}}{\text{2-}\frac{\text{1}}{\text{2-}\frac{\text{1}}{\text{…}}}}}\]  
  
  
  
A) 1.25 B) 1. (3) +C) 1 D) 1.5  
  
  
  
\#11. Juft funksiyani toping.  
  
  
  
A) \(y = \frac{sinx}{cosx + tgx}\)  
  
  
  
B) \(\ y = \frac{cosx}{sinx + ctgx}\)  
  
  
  
+C) \(y = x^{2}cosx + xctgx\)  
  
  
  
D) \(y = \frac{x^{2}}{cosx + sinx}\)  
  
  
  
\#12. Hisoblang.  
  
  
  
\[\int\_{\text{0}}^{\text{3}}\frac{\text{x}^{\text{2}}\text{+2}}{\sqrt{\text{x}^{\text{3}}\text{+6x+4}}}\text{dx}\]  
  
  
  
A) \(\frac{4}{3}\) B) \(\frac{8}{3}\) +C) \(\frac{10}{3}\) D)  
  
\(\frac{14}{3}\)  
  
  
  
\#13\(\ \log\_{2}^{2}(8x) = \log\_{2}x^{12}\) tenglamaning ildizini  
  
toping.  
  
  
  
A) 16 B) 64 C) ildizga ega emas +D) 8  
  
  
  
\#14. Rasmda \(y = a + \frac{b}{x + c}\) funksiya grafigi tasvirlangan.  
  
Quyidagilardan qaysi biri noto'g'ri?  
  
  
  
\includegraphics[width=1.07153in,height=1.328in]{media/image2.png}  
  
  
  
A) \(a^{2} + bc < 0\)  
  
  
  
+B) \(bc - a > 0\)  
  
  
  
C) \(ac = 0\)  
  
  
  
D) \(a^{4} - bc > 0\)  
  
  
  
\#15.\(\ \)Tengsizlini yeching.  
  
  
  
\[\frac{\sqrt{\text{x-}\frac{\text{1}}{\text{2}}}}{\text{log}\_{\text{3}}\text{x}^{\text{2}}}\text{≥0}\]  
  
  
  
A) \(\left\lbrack \frac{1}{2};1 \right)\)∪ (1; ∞)  
  
  
  
+B) (1; ∞)  
  
  
  
C) (\(-\)∞; \(-\)1) ∪ (1; ∞)  
  
  
  
D) (\(-\)∞; \(-\)1)  
  
  
  
\#16. 5 va 1 sonlari orasiga bir necha sonlar joylashtirildi, shundan  
  
keyin bu sonlar ketma-ketligi arifmetik progressiya tashkil qildi. Agar  
  
oraga qo'yilgan sonlarning yig'indisi 33 bo'lsa, jami nechta son  
  
qo'yilgan?  
  
  
  
+A) 11 B) 10 C) 9 D) 12  
  
  
  
\#17.  
  
\pandocbounded{\includegraphics[keepaspectratio]{media/image3.wmf}}funksiya  
  
berilgan.  
  
\pandocbounded{\includegraphics[keepaspectratio]{media/image4.wmf}} ni  
  
toping.  
  
  
  
A) \pandocbounded{\includegraphics[keepaspectratio]{media/image5.wmf}}  
  
+B) \pandocbounded{\includegraphics[keepaspectratio]{media/image6.wmf}}  
  
C) \pandocbounded{\includegraphics[keepaspectratio]{media/image7.wmf}}  
  
D) \pandocbounded{\includegraphics[keepaspectratio]{media/image8.wmf}}  
  
  
  
\#18.\(\ P(x) = {(x^{2} - 3x + n)}^{3}\)kophadning koetfisiyentlar  
  
yig'indisi 125 ga teng bo'lsa , n=?  
  
  
  
A) 6 +B) 7 C) 4 D) 3  
  
  
  
\#19. a\textsuperscript{2}(x-1)-a(9x-2)+14x+35=0 tenglama cheksiz  
  
yechimga ega bo`ladigan a ni toping.  
  
  
  
A) a=2 +B) a=7 C) a= \(-\)5 D) a=3  
  
  
  
\#20. Tenglamani yeching:  
  
\pandocbounded{\includegraphics[keepaspectratio]{media/image9.wmf}} +A)  
  
\pandocbounded{\includegraphics[keepaspectratio]{media/image10.wmf}} B)  
  
\pandocbounded{\includegraphics[keepaspectratio]{media/image11.wmf}} C)  
  
\pandocbounded{\includegraphics[keepaspectratio]{media/image12.wmf}} D)  
  
\pandocbounded{\includegraphics[keepaspectratio]{media/image13.wmf}}  
  
  
  
\#21.f(2x+1)=\(x^{3} + 2x + 5\) bo'lsa, (\(f^{- 1})(38) = ?\)  
  
  
  
A)\(\frac{1}{29}\ \) +B) \(\ \frac{2}{29}\) C) \(\frac{10}{3}\) D) 3  
  
  
  
\#22.\(\ D = \left\{ 1,2,3,4,5,6 \right\}\)to'plamning uchta elementidan  
  
iborat bo'lgan qism to'plamlarning sonini toping.  
  
  
  
A) 15  
  
  
  
B) 18  
  
  
  
+C) 20  
  
  
  
D) 22  
  
  
  
\#23\textbf{.} 1, 2, 2, 3, 3, 3, 4, 4, 4, 4, \ldots{} ketma-ketlikning  
  
1000-hadini toping.  
  
  
  
A) 43 B) 44 +C) 45 D) 46  
  
  
  
\#24. Barcha ikki xonali sonlar ko'paytmasi 3 ning qanday eng katta  
  
darajasiga qoldiqsiz bo'linadi?  
  
  
  
A) 41 B) 42 C) 43 +D) 44  
  
  
  
\#25. Savatda 30 ta olma va 20 ta nok bor. Savatdan tavakkaliga bir dona  
  
meva olindi. Uning nok bo'lish ehtimolligini toping.  
  
  
  
A)1/50 B)2/3 +C)2/5 D)3/5  
  
  
  
\#26. Hisoblang. \(\sqrt{3 + 4\sqrt{- 2 + 4\sqrt{15 + 6\sqrt{6}}}}\)  
  
  
  
+A) \(\sqrt{3} + 2\sqrt{2}\) B) \(2(3 + 2\sqrt{2})\)  
  
  
  
C) 4+\(\sqrt{2}\) D) \(\sqrt{6}\)+2  
  
  
  
\#27. Agar t\textsuperscript{3}-10=0 bo'lsa,  
  
\(\frac{2}{t^{2} + 2t + 4}\) ni t orqali ifodalang  
  
  
  
A) t+2 +B) t-2 C) t D) t+3  
  
  
  
\#28. 6\textsuperscript{x} = 0,25 bo`lsa,  
  
\(\sqrt{49^{x} - 10 \cdot 7^{x} + 25} + 7^{x} + 2,5\) ifodaning  
  
qiymatini toping.  
  
  
  
A) \(2 \cdot 7^{x} - 2,5\) B) \(7^{x} + 2,5\) +C) 7,5 D)2,5  
  
  
  
\#29.\(\ \text{log}\_{\text{a}}\sqrt{\text{a}\sqrt{\text{a}\sqrt{\text{a…}}}}\text{+}\text{log}\_{\text{b}}\sqrt[\text{3}]{\text{b}\sqrt[\text{3}]{\text{b}\sqrt[\text{3}]{\text{b…}}}}\)  
  
ni toping.  
  
  
  
A)1,2  
  
  
  
B)2,5  
  
  
  
+C)1,5  
  
  
  
D)1,8  
  
  
  
\#30.\(\ \frac{\text{1}}{\sqrt{\text{1}}\text{+}\sqrt{\text{3}}}\text{+}\frac{\text{1}}{\sqrt{\text{3}}\text{+}\sqrt{\text{5}}}\text{+…+}\frac{\text{1}}{\sqrt{\text{2n-1}}\text{+}\sqrt{\text{2n+1}}}\text{+}\frac{\text{3-}\sqrt{\text{2n-1}}}{\text{2}}\)  
  
ifodani soddalashtiring.  
  
  
  
+A) 1  
  
  
  
B) 2  
  
  
  
C) 3  
  
  
  
D) 0