نام و نام خانوادگی ....محمد حسین........ **پاسخنامه تشریحی تکلیف شماره** .... **کلاس** ...۱۲ ریاضی...

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$x \to -2^- \to f(x) = -a$

$x \to -2^+ \to f(x) = 2 \Rightarrow -a = 2 \Rightarrow a = -2$

$\left[\frac{-2}{3}\right] = -1$

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$\left[2\left(\frac{1}{2}\right)^- - 1\right] = -1$

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$$\left.\begin{aligned} x \to -\tfrac{1}{2}^- &\to \lim_{x \to -\frac{1}{2}^-} \left[-1^- - \left(-\tfrac{1}{2}\right)\right] = -1 \\ x \to -\tfrac{1}{2}^+ &\to \lim_{x \to -\frac{1}{2}^+} \left[-1^+ - \left(-\tfrac{1}{2}\right)\right] = -1 \end{aligned}\right\} \Rightarrow \boxed{-1}$$

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$$\lim_{x \to \left(-\frac{1}{2}\right)^-} \frac{10x - 5 + \left[\frac{3}{x^2}\right]}{14x - \left[\frac{-2}{x^2}\right]} = \frac{10x - 5 + 12}{16x + 9} = \frac{10x + 7}{16x + 9} = \frac{12}{17}$$

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$$\lim_{x \to 1^+} \frac{\sin^2 \pi x}{\cos \pi x + 1} = 1 - \cos \pi x = +2$$

$$\frac{\sin^2 \pi x}{\cos \pi x + 1} \times \frac{\cos \pi x - 1}{\cos \pi x - 1} = \frac{\cancel{\sin^2 \pi x}(\cos \pi x - 1)}{-\cancel{\sin^2 \pi x}} = +1 - \cos \pi x = 2$$

$\dfrac{\sqrt{2x+3}-\sqrt{3x+4}}{1+\sqrt[3]{x}} \times \dfrac{1-\sqrt[3]{x}+\sqrt[3]{x^2}}{1-\sqrt[3]{x}+\sqrt[3]{x^2}} \times \dfrac{\text{مزدوج}}{\sqrt{2x+3}+\sqrt{3x+4}} = \dfrac{2x+3-3x-4}{(1+x)(\sqrt{2x+3}+\sqrt{3x+4})}$ $\dfrac{-(\cancel{x+1})}{\cancel{(1+x)}(\sqrt{2x+3}+\sqrt{3x+4})} = \dfrac{-1}{2} = \dfrac{-1}{2}$	۶
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