تکلیف ۲۰

مهرداد ساسع

۱)

$$\lim_{x\to 2}\frac{3x-5}{x^2+ax+b} \Rightarrow 3x-5=1 \Rightarrow x^2+ax+b=0 \Rightarrow 4+2a+b=-4$$

$$\Rightarrow a=-4 \Rightarrow b=4 \Rightarrow a+b=0$$

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۲)

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۳)

$$\frac{a-1}{\frac{1}{4}+a/+a} \Rightarrow \frac{1}{3}+2a=0 \Rightarrow a=-\frac{1}{6} \Rightarrow \frac{\ominus}{0^+}=-\infty$$

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۴)

$$\lim \frac{2[x]-\left[-\frac{2}{x^2}\right]}{2[x]-\left[\frac{3}{x^2}\right]} = \frac{8+9}{-12+12}=+\infty$$

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۵)

$$\frac{(x-2)(x+2)}{\cancel{(x-2)}(x^2+2x+4)} = \frac{4}{12} = \frac{1}{3}$$

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۶)

$$\frac{(\cancel{2-\sqrt{x}})(\sqrt{x^3}+4+2\sqrt[3]{x})(x+2)}{4(\cancel{2-\sqrt{x}})} = \frac{12(-4)}{4}=-12$$

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۷)

$$\frac{2+2x-(2-x)}{\sqrt{2+\sin\frac{\pi x}{2}}\;x(\sqrt{2+x}+\sqrt{x})} = \frac{4x}{\sqrt{2x-\sin\frac{\pi x}{2}}\times 2\sqrt{2}} = -2$$

$\dfrac{(+)}{0^+} = +\infty$ 9

$\left\{\begin{array}{l} \to 1^+ \Rightarrow \dfrac{1+2k}{0^+} = -\infty \Rightarrow 1+2k<0 \Rightarrow k<-\dfrac{1}{2} \\[2ex] \to 1^- \Rightarrow \dfrac{1+k}{0^-} = -\infty \Rightarrow 1+k>0 \Rightarrow k>-1 \end{array}\right.$ $\Rightarrow$ ناموجود) (1-