تمام دوستان خانواده ی زهرا سادات حسینی با ارسال تشریحی تکلیف کار ۲۵ کالس یازدهم فیزیک B

۱-
$$\frac{0}{0} \text{ مبهم} \xrightarrow{\text{رفع ابهام}} \frac{(x-1)(4x-4)}{(x-1)(5x-5)} = \frac{1}{2}$$

۲-
$$\frac{0}{0} \text{ مبهم} \xrightarrow{\text{رفع ابهام}} \lim_{x\to 0} \frac{|3x-1|-|3x+1|}{x} = \frac{-3x+1-3x-1}{x} = -6$$

۳-
$$\frac{0}{0} \text{ مبهم} \to \lim_{x\to 4} \frac{(\sqrt{x}+2)(\sqrt{x}-2)}{(\sqrt{x}-2)} = 4$$

۴-
$$\frac{0}{0} \text{ مبهم} \xrightarrow{\text{hop}} \frac{1-\frac{2}{2\sqrt{x}}}{4x-1} = \frac{\frac{1}{2}}{7} = \frac{1}{14}$$

۵-
$$\frac{0}{0} \text{ مبهم} \xrightarrow{\text{hop}} \frac{\frac{-1}{2\sqrt{x}}}{\frac{-1}{-2\sqrt{5-x}}} = \frac{-\frac{1}{2}}{+\frac{1}{4}} = -2$$

۶-
$$\frac{0}{0} \text{ مبهم} \to \lim_{x\to 4} \frac{\sqrt{3x+4}-4}{\sqrt[3]{5x+7}-3} \times \frac{\sqrt{3x+4}+4}{\sqrt{3x+4}+4} \times \frac{\sqrt[3]{(5x+7)^2}+9+3\sqrt[3]{5x+7}}{\sqrt[3]{(5x+7)^2}+9+3\sqrt[3]{5x+7}} = \frac{3x+4-16}{5x+7-27} \times \frac{27}{8}$$

$$= \frac{3(x-4)}{5(x-4)} \times \frac{27}{8} = \frac{81}{40}$$

$$\frac{0}{0} \text{ مبهم} \to \lim_{x\to 1} \frac{\sqrt{3x+\sqrt{x}}-2}{\sqrt[3]{x}-1} \times \frac{\sqrt{3x+\sqrt{x}}+2}{\sqrt{3x+\sqrt{x}}+2} \times \frac{(\sqrt[3]{x^2}+1+\sqrt[3]{x})}{(\sqrt[3]{x^2}+1+\sqrt[3]{x})} = \frac{3x+\sqrt{x}-4}{x-1} \times \frac{3}{4}$$

$$\frac{3(3(\sqrt{x}-1)(\sqrt{x}+\frac{4}{3}))}{4(\sqrt{x}-1)(\sqrt{x}+1)} = \frac{21}{8}$$

Arman

$\frac{0}{0}$ $\xrightarrow{\text{L'H}}$ $\lim_{x\to\pi} \frac{(1+\cos x)(1+\cos^2 x-\cos x)}{(1-\cos x)(1+\cos x)} = \frac{4}{2}$ ✓

$\frac{0}{0}$ $\xrightarrow{\text{L'H}}$ $\lim_{x\to\frac{\pi}{4}} \frac{-(\cos x-\sin x)}{-(\cos x+\sin x)} = \frac{1}{\cos x} = \sqrt{2}$ ✓

$\frac{0}{0}$ $\xrightarrow{\text{L'H}}$ $\frac{\sin^2 x-\cos^2 x}{-(\sin^2 x+\cos^2 x)} = \frac{-1}{\cos^2 x} = -2$ ✓

Arman