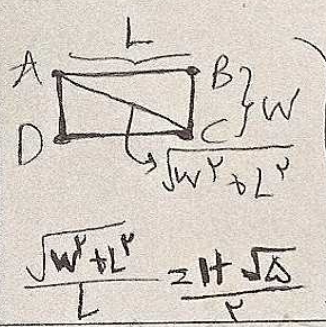


نام و نام خانوادگی جباری پاسخنامه تشریحی تکلیف شماره ۱۸۰ کلاس از روز به تاریخ
 تمرین نوشته شود

$$\left. \begin{aligned} \frac{L}{W} &= \frac{\Delta}{\varepsilon} \rightarrow L = \frac{\Delta}{\varepsilon} W \rightarrow S_1 = L \times W \rightarrow \frac{\Delta}{\varepsilon} W^2 \\ \frac{L'}{W} &= \frac{1+\sqrt{\Delta}}{\gamma} \rightarrow L' = \frac{1+\sqrt{\Delta}}{\gamma} W \rightarrow S_2 = L' \times W \rightarrow \frac{1+\sqrt{\Delta}}{\gamma} W^2 \end{aligned} \right\} \frac{S_2}{S_1} = \frac{\frac{1+\sqrt{\Delta}}{\gamma} W^2}{\frac{\Delta}{\varepsilon} W^2} = \frac{\varepsilon(1+\sqrt{\Delta})}{\gamma \Delta}$$



$$\frac{W^2 + L^2}{L^2} = \frac{1+\sqrt{\Delta}}{\gamma} \rightarrow W^2 + L^2 = L^2 \frac{1+\sqrt{\Delta}}{\gamma} \rightarrow W^2 = L^2 \left(\frac{1+\sqrt{\Delta}}{\gamma} - 1 \right) = L^2 \frac{1+\sqrt{\Delta} - \gamma}{\gamma}$$

$$\gamma a + \sqrt{\gamma a^2 + \varepsilon a} = 2 \rightarrow \sqrt{\gamma a^2 + \varepsilon a} = 2 - \gamma a \rightarrow \gamma a^2 + \varepsilon a = 4 - 4\gamma a + \gamma^2 a^2 \rightarrow \varepsilon a = 4 - 4\gamma a + \gamma^2 a^2 - \gamma a^2 \rightarrow \varepsilon a = 4 - 4\gamma a + a^2(\gamma^2 - \gamma)$$

$$\frac{\sqrt{\gamma a^2 + \varepsilon a}}{\sqrt{\gamma a^2 + \varepsilon a}} = \frac{2 - \gamma a}{2 - \gamma a} = \frac{\gamma a^2 + \varepsilon a}{\gamma a^2 + \varepsilon a} \rightarrow \frac{\gamma a^2 + \varepsilon a}{\gamma a^2 + \varepsilon a} = \frac{2 - \gamma a}{2 - \gamma a}$$

$$\frac{1}{\sqrt{\gamma a^2 + \varepsilon a}} - \frac{1}{2 - \gamma a} = \frac{2 - \gamma a}{\Delta \sqrt{\gamma a^2 + \varepsilon a}} \rightarrow \frac{1}{\sqrt{\gamma a^2 + \varepsilon a}} - \frac{1}{2 - \gamma a} = \frac{2 - \gamma a}{\Delta \sqrt{\gamma a^2 + \varepsilon a}}$$

$$\frac{2 - \gamma a}{\Delta \sqrt{\gamma a^2 + \varepsilon a}} = \frac{2 - \gamma a}{\Delta \sqrt{\gamma a^2 + \varepsilon a}} \rightarrow \frac{2 - \gamma a}{\Delta \sqrt{\gamma a^2 + \varepsilon a}} = \frac{2 - \gamma a}{\Delta \sqrt{\gamma a^2 + \varepsilon a}}$$

$$\frac{1}{x^2} + \frac{1}{(1-x)^2} = \frac{14}{9}$$

$$\frac{\sqrt{(x^2-1)^2+1}}{x^2-1} + \frac{1}{x^2-1} = \frac{14}{9}$$

$$\frac{14x^2 + 1}{9(x^2-1)^2} = \frac{14}{9}$$

$$\frac{(1-x)^2 + x^2}{x^2(1-x)^2} = \frac{14}{9} \Rightarrow \frac{x^2 - 2x + 1 + x^2}{x^2(1-x)^2} = \frac{14}{9}$$

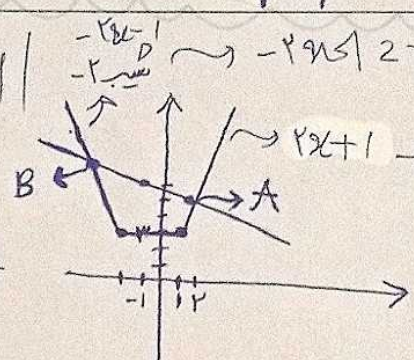
$$\sqrt{x} + \sqrt{-x^2 + 4x - 1} + \sqrt{x^2 + \sqrt{-x^2 + 4x - 1}} = 2x + 2$$

$$\frac{-8 \pm \sqrt{64 - 4(1)(-1)}}{2(1)} = \frac{-8 \pm \sqrt{68}}{2}$$

$$\frac{y}{x} = \frac{(x+2)(x-2)}{(x-2)(x-2)} = \frac{y}{x}$$

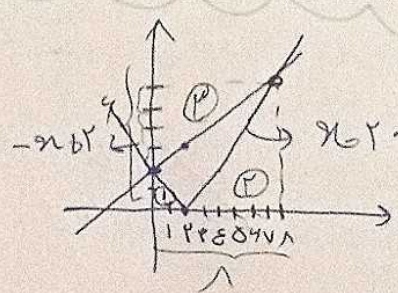
از معادله اول (x+2) = (x-2) / (x-2) = 1

$$x + y = 1 \Rightarrow y = -\frac{1}{x} + 1$$



$$\sqrt{(x-2)^2 + 1} + \sqrt{x^2 + \sqrt{(x-2)^2 + 1}} = 2x + 2$$

$$y = \frac{x}{x+2} \Rightarrow \sqrt{x^2 - 4x + 4} = 0 \Rightarrow x = 2$$



$$\frac{x}{x+2} = \frac{x-2}{x-2} = 1$$

$$S = (1 + 5 + 9 + \dots + (4 \times 1)) - \left(\frac{1 \times 2}{2} + \frac{2 \times 3}{2} + \dots + \frac{4 \times 5}{2} \right) = 12$$

$$B \rightarrow 26h \rightarrow 1 \Rightarrow h \rightarrow \frac{1}{26}$$

$$\frac{1}{x} + \frac{1}{26x} = 1$$

$$\frac{x^2 - 3x - 11}{x^2} = 0 \Rightarrow x^2 - 3x - 11 = 0$$

$$\frac{19x + 9}{26x} = \frac{1}{x} \Rightarrow 19x + 9 = 26$$