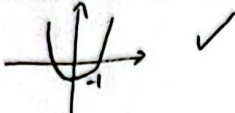


الف) $y_1^2 = 2x_1 - 1$ if $x_1 = x_2$ $\Rightarrow y_1^2 = y_2^2 \Rightarrow y_1 = y_2$ ✓
 $y_2^2 = 2x_2 - 1$

ب) $y_1^2 + y_2^2 = 2x_1 - 1$ if $x_1 = x_2$ $\Rightarrow y_1^2 + y_2^2 = y_2^2 + y_2 \Rightarrow y_1^2 - y_2^2 + y_1 - y_2 = 0$ ✓
 $y_2^2 + y_2 = 2x_2 - 1$
 $\Rightarrow (y_1 - y_2)(y_1^2 + y_1 y_2 + y_2^2) - (y_1 - y_2) = 0 \Rightarrow (y_1 - y_2)(y_1^2 + y_1 y_2 + y_2^2 + 1) = 0 \Rightarrow y_1 - y_2 = 0 \Rightarrow y_1 = y_2$ ✓
 $y_1^2 + y_1 y_2 + y_2^2 + 1 = 0$
 $+ 0.5$

الف)  ✓

ب) $x=0 \Rightarrow |y| = 1 \Rightarrow y = \pm 1$ X

ج) $y_1^2 = -x_1^2 + 2x - 1$ if $x_1 = x_2$ $\Rightarrow y_1^2 = y_2^2 \Rightarrow y_1 = y_2$ ✓
 $y_2^2 = -x_2^2 + 2x - 1$

د) $x=0 \Rightarrow \sqrt{y} = 2 \Rightarrow y = 4$ ✓

الف) $\tan \frac{\pi}{4} = \sqrt{2}$

ب) $\cot \frac{\sqrt{2}\pi}{4} = \sqrt{2}$

ج) $\tan 45^\circ = \frac{\sqrt{2}}{2}$

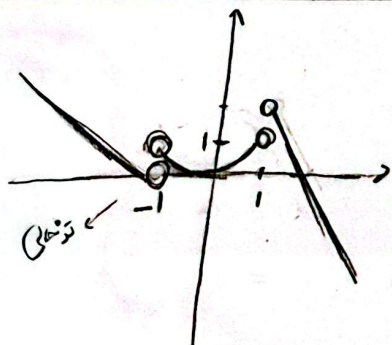
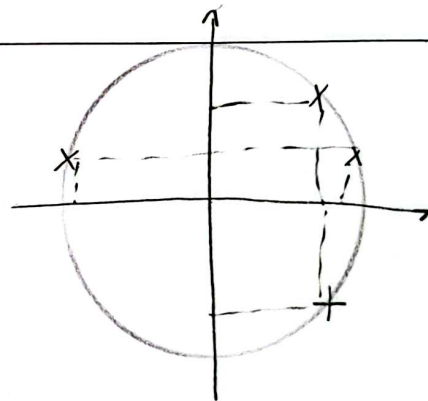
د) $\cot 110^\circ = \text{تقریباً } 0.5$

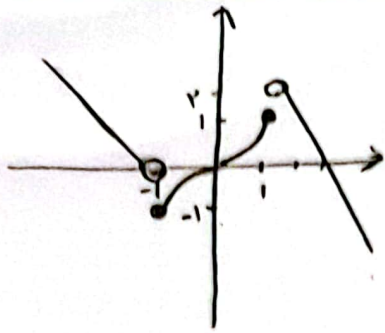
الف) $\sin \alpha = \frac{1}{\sqrt{2}}$

$\alpha = \frac{\pi}{4}, \frac{3\pi}{4}$
 $45^\circ, 135^\circ$

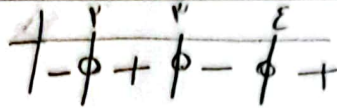
ب) $\cos \alpha = \frac{\sqrt{2}}{2}$

$\alpha = \frac{\pi}{4}, \frac{7\pi}{4}$
 $45^\circ, 315^\circ$





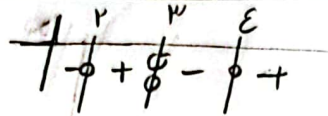
الف) $P(x) = 2, 3, 4$



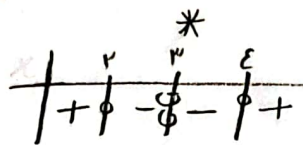
ب) $P(x) = 2, 3, 4$
مضامین



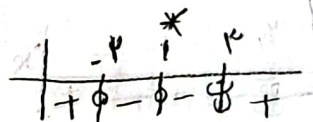
الف) $P(x) = 2, 3, 4$
در مجموع



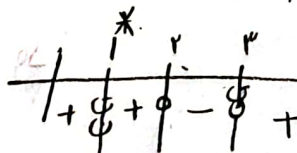
ب) $P(x) = 2, 3, 4$
مضامین و در مجموع



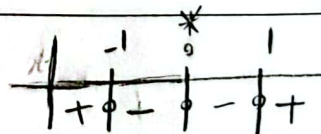
الف) $P(x) = x^2 - 3x + 2 = 0 \Rightarrow (x-1)(x-2) = 0 \Rightarrow x=1, x=2$
 $x-2=0 \Rightarrow x=2$



ب) $P(x) = 1, 2, 3$
مضامین و در مجموع



الف) $\frac{x^2(x^2-1)}{\Delta < 0} \Rightarrow P(x) = 0, \pm 1$



ب) شماره + مضامین
دلتای فرد منفی است