

$$\alpha^2 + 3 = 4\alpha \rightarrow \alpha^2 - 4\alpha + 3 = 0 \quad (\alpha - 1)(\alpha - 3) = 0$$

$$\{(1, 4), (3, 3)\}$$

$$\{(1, 12), (3, 9)\}$$

۵

الف)  $x = 3 \rightarrow |y - 1| = \sqrt{3 - 2} \rightarrow |y - 1| = 1 \quad y = (2) \text{ و } (0)$

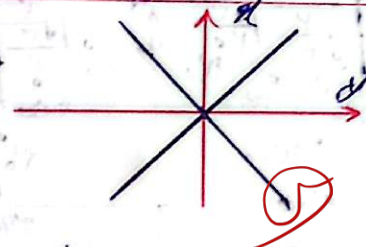
سوال ۳

اب  $x = 0 \rightarrow \sin^2 x - y = 0 \rightarrow \sin^2 x = y \quad y = (0) \text{ و } (1) \text{ و } (-1)$

ج)  $x = 0 \rightarrow \sin^2 x + \cos^2 \frac{y}{2} = 1 \rightarrow \cos^2 \frac{y}{2} = \cos^2 x \quad y = (0) \text{ و } (\pi) \text{ و } (2\pi)$

د)  $x = 0 \rightarrow 2xy = x \rightarrow 0 = 0$  ہر مقدار کے جواب میں دے گا

الف)  $|x| = |y| \rightarrow y = x$   
 $y = -x$

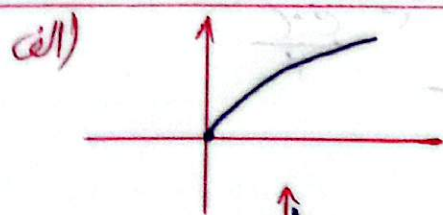


سوال ۲

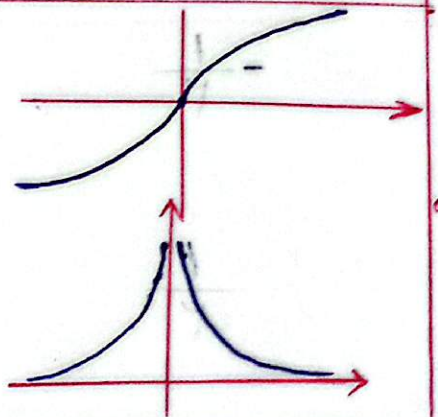
ب)  $|x| + \sqrt{x - 1} = 0 \rightarrow x = 1$  ہر دو حصے ٹھنڈے

الف)  $x^2 + |y - 1| = 4x \xrightarrow{x_1 = x_2} |y - 1| = 4$   
 $|y - 1| = 4 \rightarrow y = 5 \text{ یا } y = -3$

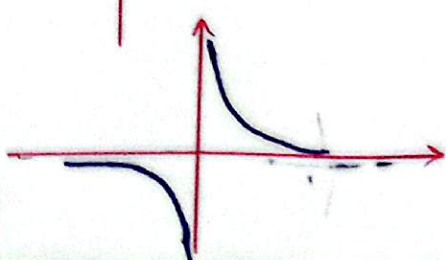
ب)  $x_1 = x_2 \rightarrow x_1^2 + 2x_1 = 0 \rightarrow x_1(x_1 + 2) = 0 \rightarrow x_1 = 0 \text{ یا } x_1 = -2$   
 $x_2^2 + 2x_2 = 0 \rightarrow x_2(x_2 + 2) = 0 \rightarrow x_2 = 0 \text{ یا } x_2 = -2$



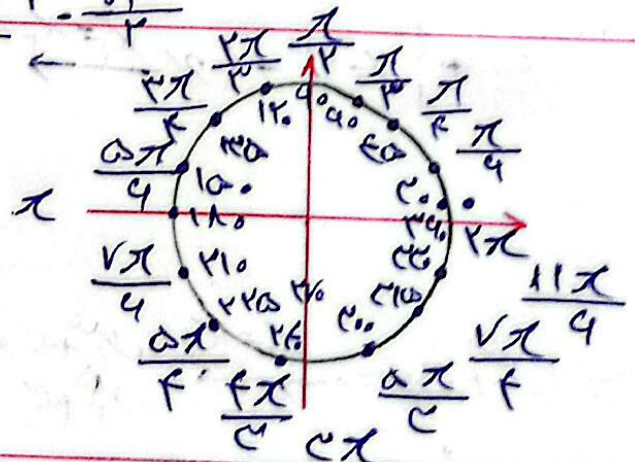
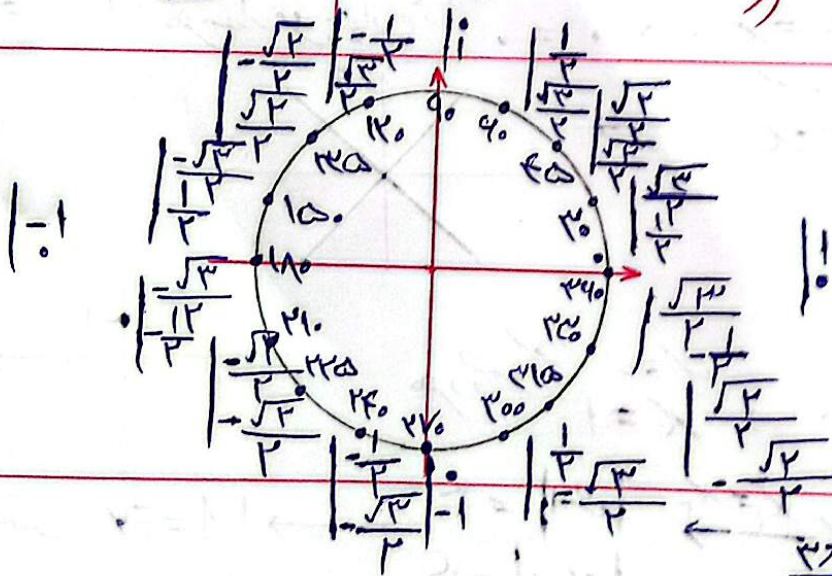
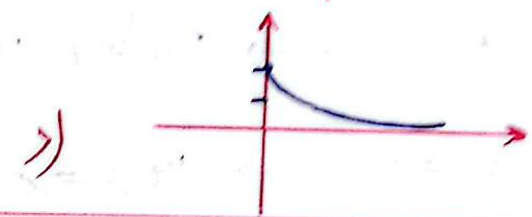
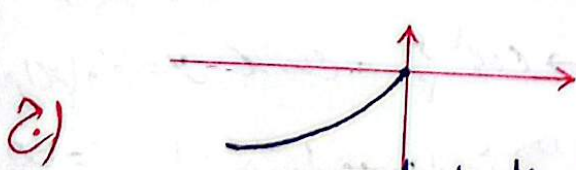
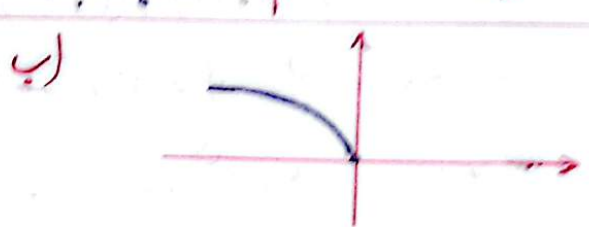
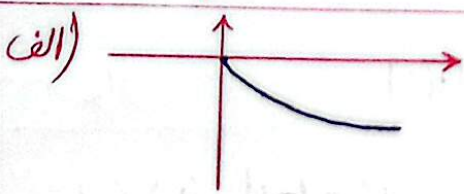
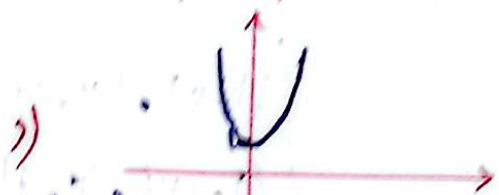
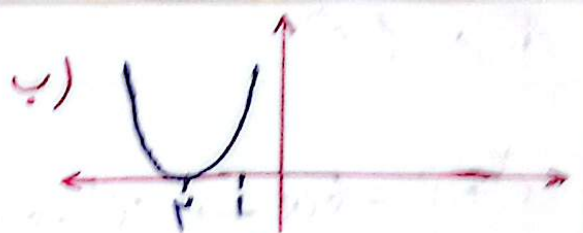
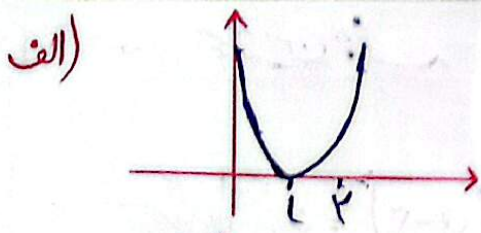
ب)



ج)



د)



الف)  $-\frac{1}{2}$

ب)  $\frac{1}{2}$

ج)  $\frac{1}{2}$

د)  $-\frac{1}{2}$