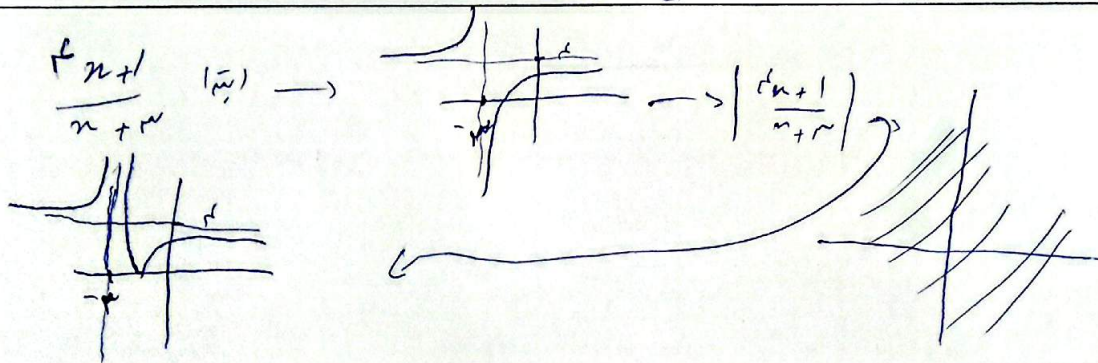
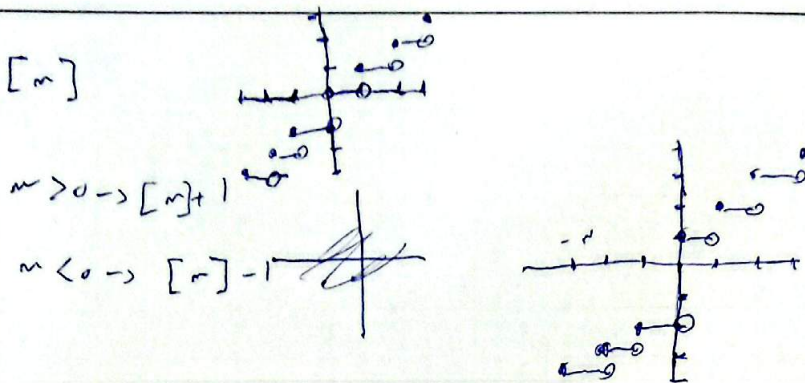
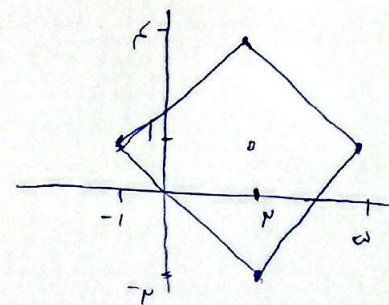


الف) $\sin^2(x + \frac{\pi}{2}) - 1$ $R = [-1, 1]$

ب) $\cos^2 x - 1$ $R = [-1, 0]$



$|x-2| + |y-1| = 3$ $\begin{cases} x-2+y-1=3 \Rightarrow y=-x+6 \\ x-2-y+1=3 \Rightarrow y=x-4 \\ -x+2+y-1=3 \Rightarrow y=x+2 \\ -x+2-y+1=3 \Rightarrow y=-x \end{cases}$



الف) $\sqrt{x+\frac{1}{4}} = t \Rightarrow t \geq \sqrt{r} \Rightarrow t^2 + 2t \begin{cases} \frac{-b}{2a} = -\frac{r}{2} = -1 \\ \sqrt{r} \rightarrow r+2\sqrt{r} \end{cases} R = [\sqrt{r}+2\sqrt{r}, \infty)$

ب) $3 + 3 \sin(x) - \sin^2(x) - \sin^2(x) = -\sin^2(x) + 2 \sin(x) + 3$ $\begin{cases} \frac{-b}{2a} = -\frac{r}{2} = 1 \\ -1 \\ 0 \end{cases}$

$\rightarrow -1 + 2 + 3 = 4$ $R = [0, 4]$

$\rightarrow 1 - 2 + 3 = 2$ $\rightarrow 0 + 0 + 3 = 3$

$$f_{(1)} = -\frac{1}{r} + 1, \quad f_{(r)} = -\frac{r}{r} + 1, \quad f_{(r)} = -1 + 1, \quad \dots$$

$$\sum_1^q f_{(r)} = q(1) + \left(\frac{q \times 1}{r}\right) \left(-\frac{1}{r}\right) = q_0 - 10 = 10$$

$$a = 0 \rightarrow \sqrt{b^2 + c} = f_{(r)} \quad r b + c \geq 0$$

$$r b \geq -c$$

$$r b + c = 1 \rightarrow r b - r b = b = 1 \rightarrow c = -r$$

$$\sqrt{r^2 + 1} \rightarrow R = [r, \infty)$$

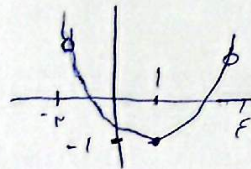
$$n^2 + a n^r + b n - 1 = \text{da } V_{-1} = (n-r)^2 = n^2 - 2 n^r + 1 n - 1 = n^2 + a n^r + b n - 1$$

$$a = -2 \quad b = 1$$

$$-2 \rightarrow y = n - r = -2 - r = -1$$

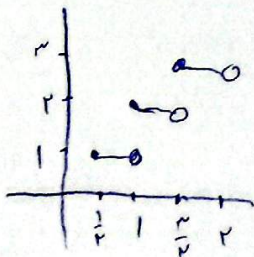
$$1 r \rightarrow x = n - r = 1 r - r = 1_0 \quad R = [-1, 1]$$

$$\frac{n(n-r)(n+r)}{n+r} = n^2 - r n$$



$$-r + r \quad f\left(-\frac{r}{r}\right) = f(-1) = r$$

$$a + d = r \quad (s = 1)$$



$$\frac{1}{r} \leq n < 1 \rightarrow 1 = 0 + 1$$

$$1 \leq n < \frac{r}{r} \rightarrow 1 + 1 = r$$

$$r \leq n < r \rightarrow 1 + r = r$$

1.