

19, V2

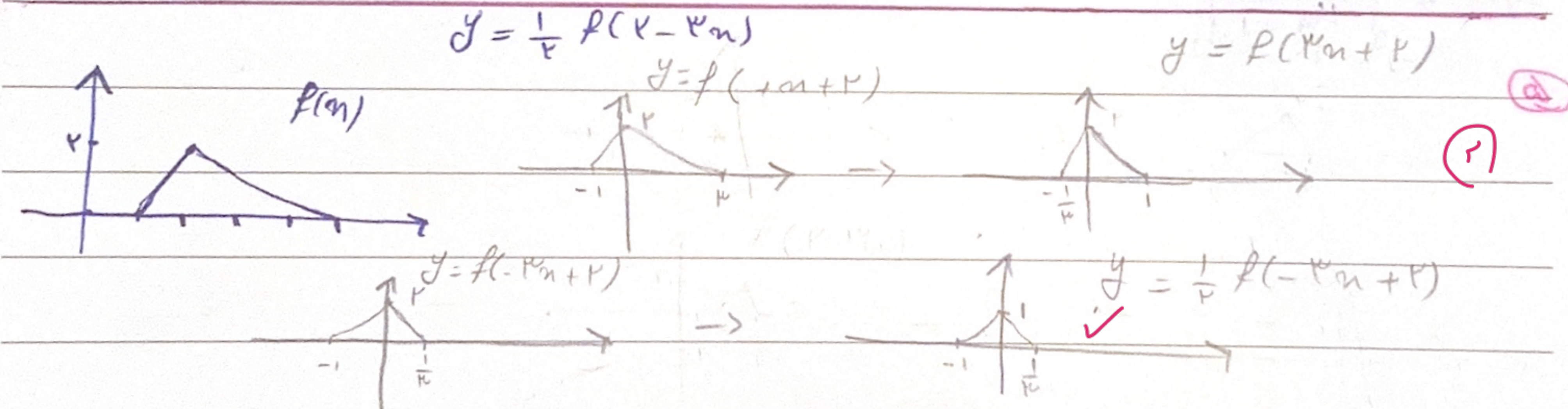
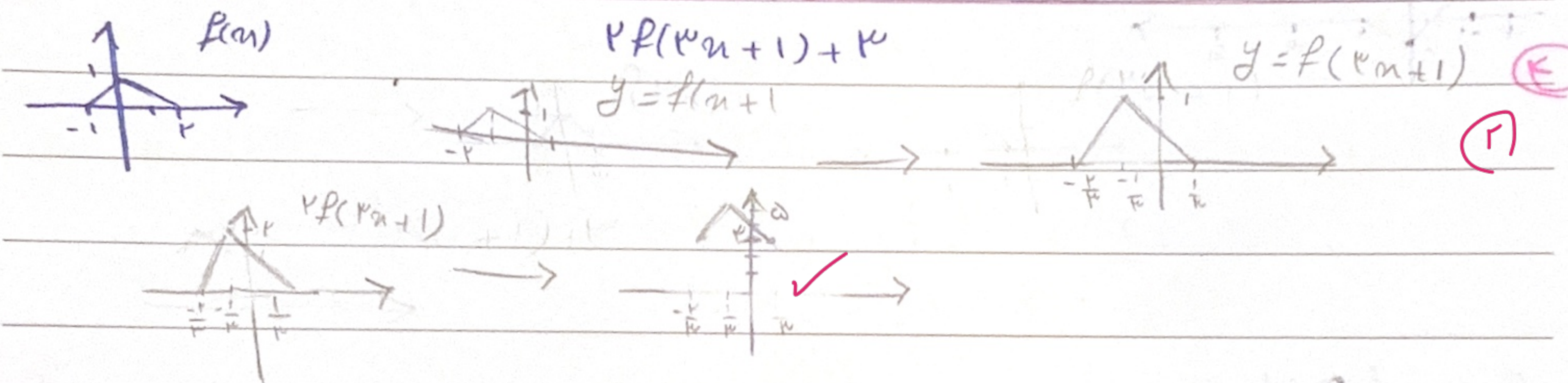
هدف

تبدیل به فرم استاندارد

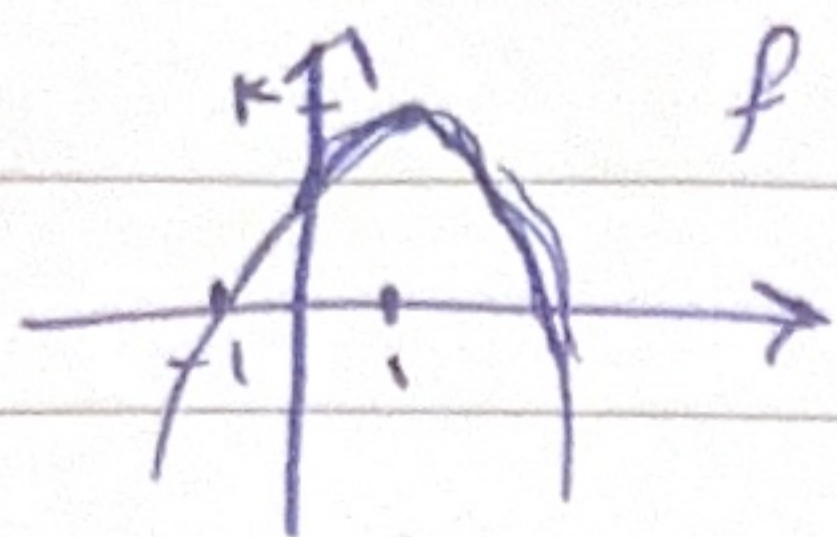
$D_{f(n)} = [-r, r] \rightarrow D \rightarrow f\left(\frac{r(n+r)}{\omega}\right) \quad -r \leq \frac{r(n+r)}{\omega} \leq r \quad (1)$
 $-1 \leq \frac{r(n+r)}{\omega} \leq 1 \quad -1 \leq \frac{r}{\omega} n + \frac{r^2}{\omega} \leq 1 \rightarrow -\frac{r^2}{\omega} \leq n \leq \frac{\omega - r^2}{r} \quad (2)$
 $\boxed{[-\frac{r^2}{\omega}, \frac{\omega - r^2}{r}]}$ (فقط!)

$f(r-n) \rightarrow D = [-r, r] \quad f(n) \rightarrow D = \emptyset \quad -r \leq n \leq r \quad (1)$
 $-1 \leq \frac{r(n+r)}{\omega} \leq 1 \quad -1 \leq \frac{r}{\omega} n + \frac{r^2}{\omega} \leq 1 \quad \boxed{[-1, 1]}$

$f\left(\frac{r(n+1)}{r}\right) \rightarrow D = [-1, r] \quad f(r-n) \rightarrow D = \emptyset \quad (1)$
 $-1 \leq n \leq r \quad -1 \leq r-n \leq \omega \quad -1 \leq r-\omega n \leq \omega \quad -r \leq -\omega n \leq r \quad -\frac{r}{\omega} \leq -n \leq \frac{r}{\omega} \quad \frac{r}{\omega} \geq n \geq -\frac{r}{\omega} \quad (2)$
 $\boxed{[-\frac{r}{\omega}, \frac{r}{\omega}]}$



$y = -\frac{1}{r} n^2 + \frac{r}{\omega} n + 1 \xrightarrow{\text{تبدیل}} S(F, r) \quad (1)$
 $y = -\frac{1}{r} (n-r)^2 + r \quad -\frac{1}{r} \leq (n-r) \leq \frac{r}{\omega} \quad (2)$
 $-\frac{1}{r} (n-r)^2 + r = 0 \quad (n-r)^2 = r \quad n-r = \pm \sqrt{r}$
 $\boxed{n = r - \sqrt{r} \quad n = r + \sqrt{r}}$



$$y = 1 - r f(\mu n + r) \rightarrow S = (\alpha, \beta)$$

(V)

$$(\frac{0}{\mu}, \frac{1}{\mu})$$

(1, VA)

$$y = 1 - r f(\frac{r}{-1}) = -v$$

$$n = -\frac{1}{\mu}$$

$$\alpha \beta = +\frac{v}{\mu}$$

مست!

$$D_f = [a, r]$$

$$D_g = [-1, b]$$

$$a - b = ?$$

(1)

$$y = f(n-1) + g(n+1) \rightarrow D = (-r, a)$$

$$a < n-1 \leq r$$

$$a+1 < n \leq a$$

(2)

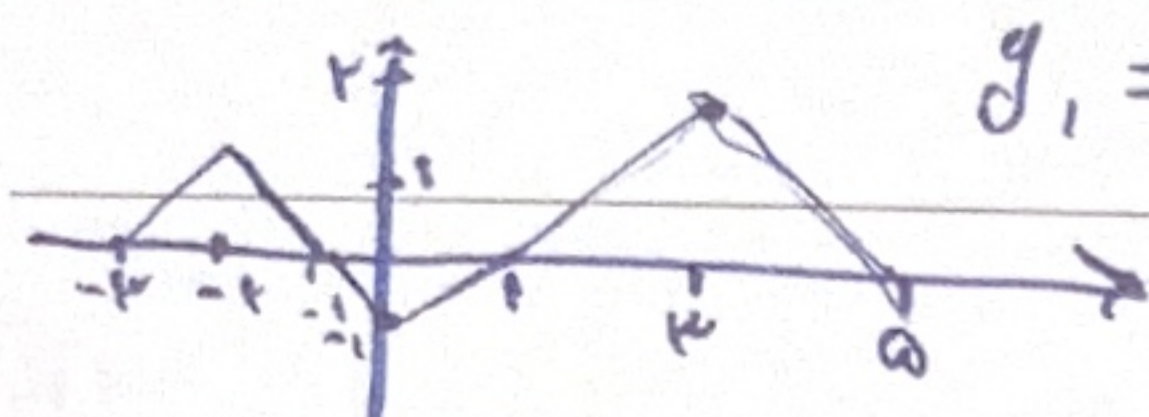
$$-1 \leq n+1 < b$$

$$-r \leq n < b-1$$

$$a+1 = -r \rightarrow a = -r$$

$$-r - r = -2r$$

$$b-1 = a \rightarrow b = a+1$$



$$g_1 = f(\frac{n}{r} + 1)$$

$$y_r = \sqrt{|r f(n) - \mu|}$$

R, D (2) (4)

$$-r \leq n \leq a$$

$$-\frac{r}{r} \leq \frac{n}{r} \leq \frac{a}{r}$$

$$-\frac{1}{r} \leq \frac{n}{r} + 1 \leq \frac{v}{r}$$

$$-1 \leq f(n) \leq r$$

$$-r \leq r f(n) \leq r$$

$$-a \leq r f(n) - \mu \leq 1$$

$$0 \leq |r f(n) - \mu| \leq a$$

$$D_{g_r} = [-\frac{1}{r}, \frac{v}{r}]$$

$$R_{g_r} = [0, \sqrt{a}]$$

$$0 \leq \sqrt{|r f(n) - \mu|} \leq \sqrt{a}$$

$$\sqrt{a}$$

$$f(n) = \left| \frac{n+1}{r n + 1} \right|$$

$$\left| \frac{n-1}{r(n-r)+1} \right| + 1 = g(n)$$

(1) (10)

$$g(n) = \left| \frac{n-1}{r n - \mu} \right| + 1$$

$$n + \left| \frac{n-1}{r n - \mu} \right| + 1 < 0$$

$$\frac{n}{r} > \frac{\mu}{r} \rightarrow n + \frac{n-1}{r n - \mu} + 1 < 0$$

$$\frac{r n^2 - \mu n + n - 1 + r n - \mu}{r n - \mu}$$

$$\pm \sqrt{r}$$

$$\frac{r n^2 - \mu}{r n - \mu}$$

$$\frac{-\sqrt{r} + \sqrt{r}}{-\phi + \phi - \frac{\mu}{r}} + \frac{\mu}{r}$$

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

$$\frac{r n^2 + r n - n + 1 + r n + \mu}{r n + \mu}$$

$$\frac{r n^2 + r n + \mu}{r n + \mu} > 0$$

$$\frac{-\mu}{r n + \mu}$$

$$\rightarrow -\frac{\mu}{r}$$

$$n < 1 \rightarrow n + \frac{n-1}{r n - \mu} + 1 < 0$$

$$\frac{r n^2 - \mu n + n - 1 + r n - \mu}{r n - \mu} = \frac{r n^2 - \mu}{r n - \mu} < 0$$

$$(-\infty, -\sqrt{r})$$

$$\frac{-\sqrt{r} + \sqrt{r}}{-\phi + \phi - \frac{\mu}{r}} + \frac{\mu}{r}$$