

(2)

①

(7)

14

②

Q

— 4



②



(2)

$$x \rightarrow x' = \frac{x+r}{r} \rightarrow A \mid \frac{1}{r} \xrightarrow{J_{(A)}} A' \mid \frac{-1/r}{-r} \rightarrow \boxed{AB = \frac{r}{r}}$$

$$y \rightarrow y' = 1 - ry$$

(2)

$$D_F = (a, r) \rightarrow D_{F'} = (a+1, \omega) \rightarrow D_g = D_F \cap D_g \rightarrow$$

$$D_g = [-1, b) \rightarrow D_{g'} = [-r, b-1)$$

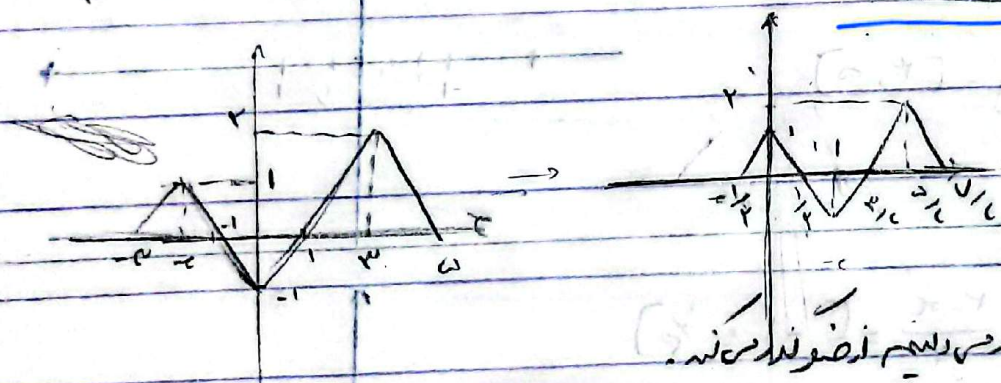
$$a+1 = -r \rightarrow a = -r-1 \rightarrow a-b = -r-1-b = -4$$

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

(2)

$$D_{F'} = [-\omega, \omega) \rightarrow D_F = [-1/r, r/r] \rightarrow D_{g'} = [-1/r, r/r]$$

$$R_{F'} = [-1, r] \rightarrow R_F = [-1, r] \rightarrow R_{g'} = [0, \sqrt{r}]$$



$\max f(r) = r$
 $\min f(r) = -1$
 $\min, \max$ (برای پیدا کردن)
 $\min, \max$ (برای پیدا کردن)
 در این صورت که...

$$y_r(\max f(r)) = \sqrt{|r(r-1)-r|} = 1 \rightarrow \max y_c = \sqrt{r}$$

$$y_r(\min f(r)) = \sqrt{|r(-1)-r|} = \sqrt{\omega}$$

ببینید...

$$f(r) = \left| \frac{x+1}{rx+1} \right| \xrightarrow{x=1/r} f(r) = \left| \frac{r-1}{r-1} \right| = 1$$

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

$$n + g(r) < 0 \rightarrow g(r) \geq 1 \rightarrow r < -1 \rightarrow r + \left| \frac{r-1}{r-1} \right| + 1 < 0$$

$$r + \frac{r-1}{r-1} + 1 < 0 \rightarrow \frac{r(r-1) - (r-1) + (r-1)}{r-1} < 0$$

$$\frac{r(r-1) - (r-1) + (r-1)}{r-1} < 0 \rightarrow \frac{r^2 - r - r + 1 + r - 1}{r-1} < 0 \rightarrow \frac{r^2 - r}{r-1} < 0 \rightarrow D_F = (-\omega, \sqrt{r})$$