

تفاوت

19, 15

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$$-2 \leq \frac{m+2}{5} \leq 2 \Rightarrow -10 \leq m+2 \leq 10 \Rightarrow -12 \leq m \leq 8 \Rightarrow \boxed{-4 \leq m \leq 6} \quad (2) -1$$

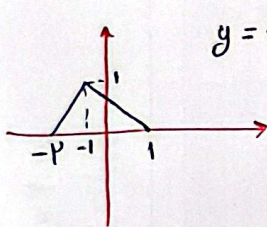
$$D = [-4, 6]$$

$$-2 \leq x \leq 2 \Rightarrow -9 \leq m \leq 9 \Rightarrow -1 \leq m+2 \leq 7 \Rightarrow \boxed{D = [-1, 7]} \quad (2) -2$$

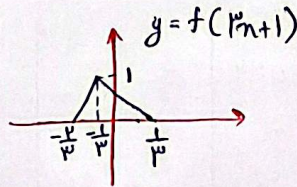
$$-1 \leq x \leq 2 \Rightarrow -3 \leq mx \leq 4 \Rightarrow -2 \leq m+1 \leq 10 \Rightarrow -1 \leq \frac{m+1}{2} \leq 5$$

$$D_f = [-1, 5] \rightarrow -1 \leq 2-5n \leq 5 \Rightarrow -3 \leq -5n \leq 3 \Rightarrow -\frac{3}{5} \leq n \leq \frac{3}{5}$$

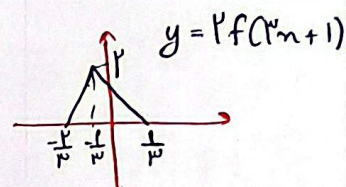
$$\boxed{D = (-\frac{3}{5}, \frac{3}{5})}$$



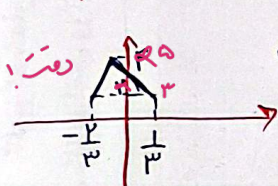
$$y = f(m+1)$$



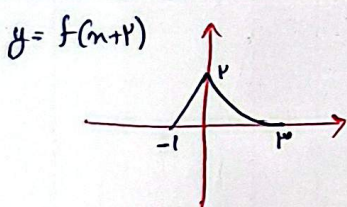
$$y = f(m+1)$$



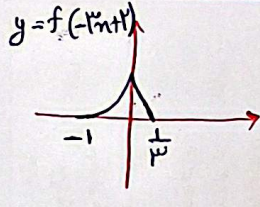
$$y = 2f(m+1)$$



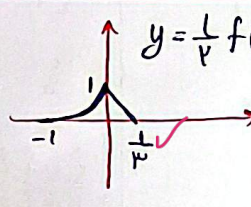
$$y = 2f(m+1) \quad (2) -3$$



$$y = f(m+2)$$



$$y = f(m+2)$$



$$y = \frac{1}{2} f(m+2)$$

$$(2) -4$$

$$x_{s1} = -\frac{b}{a} = \frac{2}{5}$$

$$y_{s1} = \frac{21}{25}$$

$$y = a(n-b)^r + c$$

$$b = 2$$

$$c = 2$$

$$\Rightarrow a = -\frac{1}{2}$$

$$y = 0 \Rightarrow -\frac{1}{2}(n-2)^r + 2 = 0 \Rightarrow 4 = (n-2)^r \Rightarrow \begin{cases} n=4 \\ n=6 \end{cases}$$

$$(2) -5$$

$$f(n) = a(n-1)^r + 2 \xrightarrow{(2,0)} f(n) = -(n-1)^r + 2$$

$$y = 1 - 2(-(m+1)^r + 2) \Rightarrow x_s = -\frac{1}{2}, y_s = -1 \Rightarrow \boxed{\alpha\beta = \frac{1}{2}}$$

$$(2) -6$$

$$D_{f(n-1)} = (a+1, \Delta] \quad D_{g(n+1)} = [-P, b-1)$$

(r) - 1

$$D_{f(n-1)} \cap D_{g(n+1)} = (-P, \Delta) \quad \left\{ \begin{array}{l} a+1 = -P \Rightarrow a = -P \\ b-1 = \Delta \Rightarrow b = \Delta \end{array} \right\} \quad a-b = -9$$

$$-P \leq n \leq \Delta \Rightarrow -\frac{P}{P} \leq \frac{n}{P} \leq \frac{\Delta}{P} \Rightarrow -\frac{1}{P} \leq \frac{n}{P} + 1 \leq \frac{P}{P} \Rightarrow P_{y_P} = \left[-\frac{1}{P}, \frac{P}{P}\right]$$

(r) - 9

$$-1 \leq f(n) \leq P \Rightarrow -P \leq P f(n) \leq P \Rightarrow -\Delta \leq P f(n) - P \leq 1 \Rightarrow 0 \leq |P f(n) - P| \leq \Delta$$

$$0 \leq \sqrt{|P f(n) - P|} \leq \sqrt{\Delta} \rightarrow R_{y_P} = [0, \sqrt{\Delta}]$$

$$f(n) = \left| \frac{n+1}{Pn+1} \right| \xrightarrow{\text{add } P \text{ to } P} \left| \frac{n-P+1}{P(n-P)+1} \right| = \left| \frac{n-1}{Pn-P} \right| \xrightarrow{\text{add } P \text{ to } P} \left| \frac{n-1}{Pn-P} \right| + 1$$

(r) - 10

$$n+1 + \left| \frac{n-1}{Pn-P} \right| < 0 \quad \begin{cases} n+1 + \frac{n-1}{Pn-P} & n > \frac{P}{P} \quad \underline{P} \quad n < 1 \\ n+1 - \frac{n-1}{Pn-P} & 1 \leq n < \frac{P}{P} \end{cases}$$

$$\begin{cases} \frac{Pn^2 - Pn + Pn - P + n - 1}{Pn - P} = \frac{Pn^2 - P}{Pn - P} < 0 \Rightarrow \frac{-P + \sqrt{P}}{-1 + \frac{1}{P}} + \frac{1}{P} \\ \frac{Pn^2 - Pn + Pn - P - n + 1}{Pn - P} = \frac{Pn^2 - Pn - P}{Pn - P} < 0 \Rightarrow \frac{1 - \sqrt{P}}{-1 + \frac{1}{P}} + \frac{1 + \sqrt{P}}{P} \end{cases}$$

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

X

$$Pn^2 - Pn - P \quad \Delta = P^2 + 15 = P_0$$

$$\frac{P \pm \sqrt{P_0}}{P}$$

$$\frac{1 \pm \sqrt{\Delta}}{P}$$