

$$r n^r + r n + k + y^r + y = 0$$

$$r(n-1)^r + (y+r)^r = 0 \quad k = 2, 9 \quad (11) \quad -1$$

$$r(n^r - r n) + y^r + y = 0$$

$$(n-1)^r + (y+r)^r = 0$$

$$r(n^r - r n + 1) + y^r + y = 0$$

$$\boxed{n=1} \quad \boxed{y=-r}$$

$$n=a \quad a^r + r a = r a + a + r \quad a^r + a = r \rightarrow a(a+1) = r \quad -2$$

$$1 + \epsilon = a$$

$$n = -r$$

$$r n^r - b = a + r n \rightarrow 1 n - b = a - r \rightarrow 1 n + r = a + b$$

$$r n - a \geq 0$$

$$r n \geq a \rightarrow r n \geq \frac{a}{r}$$

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

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

$$b - r n \geq 0$$

$$r n \leq b \rightarrow r n \leq b$$

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

$$\frac{b}{a} \leq \frac{a}{b} \leq \frac{b}{a}$$

$$\boxed{\frac{1}{r}}$$

$$[n] - r \geq 0 \Rightarrow [n] \geq r$$

$$|n - r| \neq 0 \Rightarrow n \neq r \quad -d$$

$$r - [n] \geq 0 \Rightarrow [n] \leq r$$

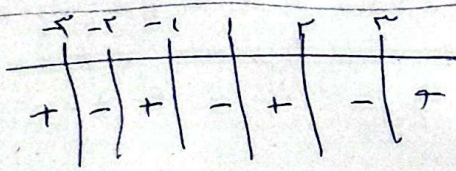


$$\frac{n+1}{|n-r|} \geq 0 \quad n+1 \geq 0 \quad \Delta \leq 0 \quad \text{الف}$$

$$n \geq -1$$

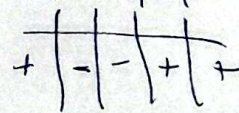
$$Df = [-1, r], \{r\}$$

$$D = [-1, r] - \{r\}$$

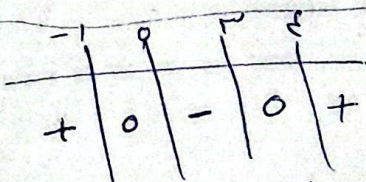


$$D = (-\infty, -r) \cup [-r, -1] \cup [1, r) \cup [r, \infty)$$

$$\frac{n^r - n - r}{n^r - 15 n^r + 9} \geq 0 \quad r-1, r, r \quad \text{الف}$$



$$D = (-\infty, -r) \cup (r, \infty) - \{r\}$$



$$D = (-\infty, -1) \cup [0, r) \cup [r, \infty)$$

$$[n] \geq r$$

$$[n] \geq r \quad \text{الف}$$

$$D = (-\infty, r]$$

$$1 - r \geq n \geq r$$

$$| \rightarrow$$

$$\sin^2 n \leq 1 \Rightarrow \sin n \geq -\frac{1}{r}$$

$$D = [k\pi - \frac{\pi}{r}, k\pi + \frac{\pi}{r}]$$

$$\cos n \neq 0 \quad \sin n \neq 0, \cos n \neq 1 \quad \text{الف}$$

$$\boxed{\tan n \neq 1}$$

$$D = \mathbb{R} - \{k\pi, k\pi - \frac{\pi}{r}, k\pi, \frac{\pi}{r}\}$$

$$[-n, -1) \cup (r, +\infty)$$

1-9

$$n^r - rn \neq 0 \rightarrow n \neq 1/r$$

$$n^r - rn > 0 \quad \begin{array}{c} 0 \quad r \\ + \quad - \quad + \end{array}$$

$$D = (-\infty, 0) \cup (r, +\infty) - \{-1, r\}$$

$$1 - 10) \frac{n-1}{r} \rightarrow n) \quad \text{الف - 9}$$

$$n-1 > \frac{1}{r} \quad n) \frac{r}{r} \rightarrow 0 < 1$$

$$D = [\frac{r}{r}, +\infty)$$

$$\frac{r(n+1)}{rn+r} \in W$$

1-10

$$D = \{n \mid n = \frac{-r(n+1)}{r(n+r)}, k \in W\}$$

$$r^n - n^r \geq n$$

الف - 10

$$r^n - n^r \geq r - n^r + r(n-r) > 0$$

$$n^r - r(n+r) \leq 0$$

$$\begin{array}{c} 1 \quad r \\ + \quad - \quad + \end{array}$$

$$(n-r)/(n-1)$$

$$D = [1, r)$$