

$$\frac{1}{n^r} \sim \frac{1}{(1-n^r)} \sim \frac{14}{9} \rightsquigarrow \frac{r n^r - r n^{r+1}}{n^r (n-1)^r} = \frac{14}{9} \rightsquigarrow 140 n^r - r^2 n^r - 14 r n^r + 14 n^r$$

$$= 14 n^r - 14 n^{r+1} \rightsquigarrow 140 n^r - r^2 n^r - 14 r n^r + 14 n^r$$

$$\rightsquigarrow \xi = \frac{b}{a} \rightarrow \frac{r^2}{14} = \boxed{r}$$

6

$$\sqrt{n} + \sqrt{-n^r + r n^r + r^2 n - 14} + \sqrt{n^r + \sqrt{-n^r + 4 n - 1}} = n + r$$

$$-(n-\xi)(n-\delta)(n+\alpha) \quad -(n-r)(n-\xi) \rightarrow D_1 \frac{r}{-1+\frac{\xi}{r}}$$

$$L, D_2 \frac{-\delta}{r} - \frac{\xi}{r} = \rightarrow D_1 \wedge D_2 = \xi$$

7

$$\rightarrow \sqrt{\xi + 0} + \sqrt{14 + 0} = 4 \rightarrow \xi + r = 4 \rightarrow \boxed{n = \xi}$$

$$y = |n+r| + |n-1| \quad y = -\frac{1}{r}n + \frac{14}{r}$$

$$\rightarrow -\frac{1}{r}n + \frac{14}{r} = r n + 1 \rightarrow \frac{14}{r} = \frac{r}{r}n \rightarrow n = r, y = \frac{14}{r}$$

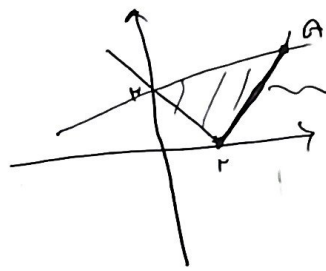
$$\rightarrow -\frac{1}{r}n + \frac{14}{r} = -r n - 1 \rightarrow \frac{r}{r} = -\frac{\alpha}{r}n \rightarrow n = -r, y = \frac{14}{r}$$

$$\rightarrow \boxed{d = \delta}$$

8

$$y = \sqrt{n^r - r n^{r+1}} = \sqrt{(n-r)^r} \rightarrow y = |n-r|$$

$$y = \frac{1}{r}n + r$$



$$B n - r = \frac{1}{r}n + r \rightarrow \frac{1}{r}n = \xi \rightarrow n = r$$

$$\begin{bmatrix} r \\ 0 \end{bmatrix}, \begin{bmatrix} 0 \\ r \end{bmatrix}, \begin{bmatrix} 1 \\ 4 \end{bmatrix}$$

$$\xi = \frac{1}{r} \begin{vmatrix} 0 & r & 1 \\ r & 0 & 4 \\ 1 & 1 & 1 \end{vmatrix} = \frac{1}{r} (r \xi) = 1 r$$

9

نقطه $\rightarrow n$ نقطه $\rightarrow n+9$ نقطه $\rightarrow r$

$$\frac{1}{n} + \frac{1}{n+9} = \frac{1}{r} \rightarrow \frac{r n + 9}{n^2 + 9 n} = \frac{1}{r} \rightsquigarrow r n + 14 = n^2 + 9 n \rightarrow n^2 - r n - 14$$

$$\rightsquigarrow (n - r^4)(n + \alpha) = 0 \rightarrow n = r^4, -\alpha \rightarrow \boxed{C \text{ و } r^4}$$

10