

$$n^2(t-n) - r\omega(t-n) > 0 \rightarrow (n^2 - r\omega)(t-n) > 0 \rightarrow \frac{-n^2 \pm \omega}{2} \quad \textcircled{1} \quad \checkmark$$

$$n^2 - r\omega + 1 \leq 0 \rightarrow (n-r)(n+r) \leq 0 \rightarrow \frac{r \pm \omega}{2} \cap \{r\} \quad \textcircled{r}$$

$$\sqrt{t} + \sqrt{14} = r + r \rightarrow \checkmark \quad \boxed{n=r} \quad \checkmark$$

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

$$n > 1 \rightarrow 14-n = r+n+r \rightarrow n = r \quad \checkmark \quad \textcircled{r}$$

$$-r \leq n \leq 1 \rightarrow 14-n = r \rightarrow n = 1 \quad \times$$

$$n < -r \rightarrow 14-n = -r-n-r \rightarrow n = -r/2 \quad \checkmark$$

$$x=y=\omega$$

$$x \neq y \rightarrow y = \sqrt{r}$$

$$\sqrt{4r+r^2} = r\sqrt{5} \quad \checkmark$$

$$\sqrt{(n-r)^2} = |x-y|$$

$$n > r \rightarrow n-r = \frac{1}{r}n+r \rightarrow n = r \quad \checkmark, y = r \quad \textcircled{A}$$

$$n \leq r \rightarrow -n+r = \frac{1}{r}n+r \rightarrow n = r \quad \checkmark, y = r \quad \textcircled{B}$$

$$C(r) \rightarrow A = \sqrt{4r^2 + 4r^2} = 4\sqrt{r}$$

$$B = \sqrt{r^2 + r^2} = r\sqrt{2} \quad \Rightarrow 5 = 12 \quad \checkmark$$

$$\frac{1}{n} + \frac{1}{n+9} = r_0 \rightarrow 10n + 110 + r_0 n = n^2 + 9n$$

$$\frac{\partial \phi}{\partial r}$$

$$n^2 - r\omega = 110 \rightarrow (n-r\omega)/(n+\omega) \rightarrow n = r\omega \quad \checkmark$$

