

$$\left. \begin{aligned} d &= \frac{r(r-r)}{r(r-r+1)} = \frac{r}{r(r-r+1)} \\ \text{find } d_1 &= r(n+1) \text{ de?} \\ d &= \frac{11-r}{n+1-1} = \frac{r}{n} \end{aligned} \right\} \Rightarrow d = d \Rightarrow \frac{r}{r(r-r+1)} = \frac{r}{n} \Rightarrow r(r-r+1) = r \cdot n$$

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$$n = r \quad \checkmark$$

$$a_r + a_{14} = a_n + a_{n+r} \Rightarrow r+14 = n+n+r \Rightarrow n = 14$$

$$a_n = r a_{\frac{n}{r}} \xrightarrow{n=14} a_n = r a_r \Rightarrow a_1 + 14d = r(a_1 + rd) \Rightarrow a_1 + 14d = r a_1 + r d$$

$$\Rightarrow r a_1 = -rd \Rightarrow a_1 = -d$$

$$a_1 + (n-1)d = 0 \xrightarrow{a_1 = -d} \underset{\substack{\downarrow \\ a_1}}{-d} + nd - d = 0 \Rightarrow nd = rd \Rightarrow n = r \sim \text{find de} \quad \checkmark$$