

$$\begin{cases} a_3 a_4 = 70 \\ a_1 a_2 = 4 \end{cases}$$

$$\begin{cases} (a_i + 2d)(a_i + 3d) = 70 \\ a_i(a_i + d) = 4 \quad (*) \end{cases}$$

$$\begin{cases} a_i^2 + 5a_i d + 6d^2 = 70 \\ a_i^2 + a_i d = 4 \end{cases}$$

$$4a_i d + 6d^2 = 66$$

$$2a_i d + 3d^2 = 33$$

$$a_i = \frac{33 - 3d^2}{2d}$$

$$(*) \rightarrow (213)$$

$$\frac{33 - 3d^2}{2d} \cdot \left(\frac{33 - 3d^2}{2d} + d \right) = 4$$

$$\frac{33 - 3d^2}{2d} \cdot \frac{33 - d^2}{2d} = 4$$

$$4089 - 132d^2 + 3d^4 = 16d^2$$

$$3d^4 - 148d^2 + 4089 = 0$$

$$d^2 = \frac{148 \pm 94}{6} = \sqrt[40\frac{1}{3}}{9}$$

$$\boxed{\begin{aligned} d=3 &\rightarrow a_i=1 \\ d=\sqrt{40\frac{1}{3}} &\rightarrow a_i=-\sqrt{48} \end{aligned}}$$