

$$\begin{array}{cccc} \frac{23}{(3,2)} & a_1 & a_1+d & a_1+2d & a_1+3d \\ & a_1-1 & a_1+d-2 & a_1+2d-2 & a_1+3d \end{array}$$

$$\begin{cases} (a_1+d-2)^2 = (a_1-1)(a_1+2d-2) \\ (a_1+2d-2)^2 = (a_1+d-2)(a_1+3d) \end{cases}$$

$$a_1^2 + d^2 + 4 + 2a_1d - 4a_1 - 4d = a_1^2 + 2da_1 - 2a_1 - a_1 - 2d + 2$$

$$(*) \quad |d^2 = 2a_1 + 2d - 4|$$

$$a_1^2 + 4d^2 + 4 - 4a_1 + 4da_1 - 8d = a_1^2 + 3da_1 + da_1 + 3d^2 - 2a_1 - 6d$$

$$|d^2 = 2a_1 + 2d - 4|$$

$$a_1 + 2d - 2 = 2a_1 + 2d - 4$$

$$|2 = a_1|$$

(\*)  $\rightarrow$   $n \neq 2, 3$

$$d^2 = 2 + 2d - 2$$

$$d^2 = 2d \rightarrow \frac{d}{d} = 2 \rightarrow |2, 4, 6, 8|$$