

$$1 - 2, 9, 16, 25, \dots \rightarrow t_n = F_{n+1} \text{ (لأن } F_{10+1} = F_{11} = 55)$$

$$2 - \text{وحيث } F_{n+2} \rightarrow \frac{1}{F_n} (a_1 + a_{10}) = \Delta (F_1 + F_2) = F_{10}$$

$$\rightarrow \text{فإن } F_{11} = F_{10} + F_9 = 55 + 34 = 89$$

$$3 - 2 - 1 - 5 = d \rightarrow d = 1 - 5 = -4 \rightarrow t_n = 1 + 5n + (n-1)(-4)$$

$$t_{10} = 1 + 5(10) + 9(-4) = 1 + 50 - 36 = 15$$

$$t_{10} = 1 + 5(10) + 9(-4) = 15$$

$$4 - \frac{x+y}{2} = 2 \rightarrow x+y=4 \rightarrow y=4-x$$

$$x + \frac{y}{2} = 2 \rightarrow x + \frac{4-x}{2} = 2 \rightarrow 2x + 4 - x = 4 \rightarrow x = 0 \rightarrow y = 4$$

$$\rightarrow 4 - 2x = 0 \rightarrow x = 2 \rightarrow y = 0$$

$$5 - d = 2x - 1 - 2x + 4 = 3, 4x - 2x + 1 = 2 \rightarrow x = \frac{1}{2}$$

$$6 - a_n = 2n+1, b_n = 2n-1 \rightarrow a_{n-1} \leq 1 \rightarrow a_n \leq 3 \rightarrow n \leq 2$$

$$a_n = 2n+1$$

$$b_n = 2n-1$$

$$7 - a_1 + a_2 + a_3 = 11 \rightarrow 1 + 3 + 5 = 9 \rightarrow a_4 = 2$$

$$a_1 + a_2 + a_3 + a_4 = 10 \rightarrow 1 + 3 + 5 + 2 = 11 \rightarrow a_5 = 1$$

$$a_1 - a_2 = 2 \rightarrow d = -1, a_1 = 1 \rightarrow \frac{a_n - a_1}{d} = \frac{1-1}{-1} = 0$$



$$1 - a_1 + a_2 + a_3 = 1 \rightarrow a_1 = 1, b_1 = a_1 + a_2 = a_1 + r d + a_1 + r d$$

$$\rightarrow d = r \quad a_1 = a_1 - d = 1 - r = r \rightarrow a_n = r + (n-1)r$$

$$\rightarrow r + r \times r = r^2$$

$$9 - \frac{r(r+1)d}{r} = 9 \times r(r+rd)$$

$$\rightarrow r(r+1d) = r(r+rd)$$

$$\Rightarrow rd = ra \rightarrow ra = d \rightarrow \frac{a_1 + 11d}{a_1 + 4d} = \frac{r + 11r}{r + 4r} = r$$

$$10 - a_1 = 11 \rightarrow 11, 12, 13 \quad a_1 + 4d = 11 \rightarrow d = 1$$

$$ra + v = a_n \quad b_1 = 11 \quad b_r = 11r = b_1 + rd$$

$$d = 1 \rightarrow \frac{11r - 11}{r + 1} = 1 \rightarrow r = 1$$