

$$\text{الف) } t_n = n^2 - 6n + 7 \rightarrow \min \left| \frac{y}{x} = 2 \Rightarrow \boxed{t_3 = -7} \right. \quad \checkmark$$

$$\text{ب) } t_n = n^2 + 4n + 1 \rightarrow \min \left| \frac{-4}{2} = -2 \Rightarrow n = 1 \Rightarrow \boxed{t_1 = 6} \right. \quad \checkmark$$

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$$t_n = -\frac{1}{2}n^2 - V_n - \frac{1}{2}n^2 - V_n - \frac{1}{2}n^2 - V_n \dots$$

$$1a = 2 \Rightarrow a = 1$$

$$t_0 = 1 = C$$

$$t_n = \frac{1}{2}n^2 + bn + 1 \Rightarrow \frac{1}{2} + b + 1 = -2 \Rightarrow b + 2 = -2 \Rightarrow b = -4$$

$$t_1 = -2$$

$$\Rightarrow t_n = \frac{1}{2}n^2 - 4n + 1 \Rightarrow t_{10} = \frac{1}{2}(10)^2 - 4(10) + 1 = 100 - 40 + 1 = \boxed{61} \quad \checkmark$$

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$$t_n = -\frac{1}{2}n^2 - 1n^2 - \frac{1}{2}n^2 - \frac{1}{2}n^2 \dots$$

$$1a = 2 \Rightarrow a = 2$$

$$t_0 = -V = C$$

$$t_n = \frac{1}{2}n^2 + bn - V \Rightarrow \frac{1}{2}(1)^2 + b - V = -4 \Rightarrow b - 1 = -4 \Rightarrow b = -3$$

$$t_1 = -4$$

$$\Rightarrow \boxed{t_n = \frac{1}{2}n^2 - 3n - V} \quad \checkmark$$

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$$(-\infty, a + 4] \cap [2a + 1, +\infty) \rightarrow \text{مقاطع} \Rightarrow a + 4 < 2a + 1 \Rightarrow -a < -3 \Rightarrow a > 3 \Rightarrow \boxed{a = [3, +\infty)} \quad \checkmark$$

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$$\text{الف) } 2, 6, 9, \dots \rightarrow t_n = 2n \Rightarrow 100 = 2n \Rightarrow n = \frac{100}{2} = \boxed{50}$$

$$\text{ب) } 1, 4, 9, 16, \dots \rightarrow t_n = 4n \Rightarrow 100 = 4n \Rightarrow n = \frac{100}{4} = \boxed{25}$$

$$\text{ج) } 2, 6, 9, 12, 15, \dots \rightarrow t_n = 3n \Rightarrow 100 = 3n \Rightarrow n = \frac{100}{3} = \boxed{33}$$

$$\text{د) } 22 + 20 - 6 = \boxed{36} = (\text{مجموعه})$$

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