

الف) $n = \frac{-b}{2a} \rightarrow -\frac{(-9)}{2} = \frac{9}{2} = 4.5 \rightarrow n = 5$ $4(5)^2 - 9(5) + 2 = 9 - 18 + 2 = -7$

$a n^2 + b n + c$

ج) $n = \frac{-b}{2a} \rightarrow -\frac{(-4)}{2} = -2 \rightarrow n = -2$ $(-2)^2 + 4(-2) + 1 = 4 - 8 + 1 = -3$

$a n^2 + b n + c$

$n^2 - 4n + 1$

$(1)^2 - 4(1) + 1 = 1 - 4 + 1 = -2$

Diagram showing coefficients: $a=1, b=-4, c=1$.
 $1 + b = -4 \rightarrow b = -4$
 $c = 1$
 $a = 1$
 $b = -4$

$a n^2 + b n + c$

$2n^2 + 3n - 5$

$2n^2 + 3n - 5$

Diagram showing coefficients: $a=2, b=3, c=-5$.
 $2a = 4 \rightarrow a = 2$
 $b = 3$
 $c = -5$

$2a + 1 = a + 4$

$a = 3$

Diagram showing a sequence of numbers: $1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100$

برای اینکه از آن متوجه شویم که $(2n+1)$ و $(n+4)$ (مساوی) هم پیدا کنیم

الف) $\{n \in \mathbb{N} \mid n \leq 100\}$ $\frac{100 - 1}{2} + 1 = 50$

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