

$f(n) = \frac{1}{n} - \left\lfloor \frac{n+1}{n} \right\rfloor \Rightarrow \frac{1}{n} - \left\lfloor 1 + \frac{1}{n} \right\rfloor$
 $\Rightarrow \frac{1}{n} - \left\lfloor \frac{1}{n} \right\rfloor - 1 \Rightarrow 0 < \dots - \{ \} < 1$
 $\Rightarrow 0 < \frac{1}{n} - \left\lfloor \frac{1}{n} \right\rfloor < 1 \Rightarrow 0 < \frac{1}{n} - \left\lfloor \frac{1}{n} \right\rfloor - 1 < 0$
 $\Rightarrow R_f = [-1, 0)$

این ابتدا تابع را رسم کردیم
 سپس برآورد را اعمال کردیم

$\Rightarrow R_f = \{-\omega, \dots, \omega\}$

$g = n - 2 \left\lfloor \frac{n}{2} \right\rfloor \quad n \in (-2, 2)$
 $-2 \leq n < 0 \Rightarrow n - 2(-1)$
 $0 \leq n < 2 \Rightarrow n$

$g = \left\lfloor -2n \right\rfloor - 1 \quad n \in (-1, 1)$
 $\Rightarrow -1 < n \leq -\frac{1}{2} \Rightarrow \dots - 1 = 0$
 $-\frac{1}{2} < n \leq 0 \Rightarrow 0 - 1 = -1$
 $0 < n \leq \frac{1}{2} \Rightarrow -1 - 1 = -2$
 $\frac{1}{2} < n < 1 \Rightarrow -2 - 1 = -3$

$g = \left\lfloor n^2 - 2n \right\rfloor \quad n \in [-1, 2]$

$g = \left\lfloor |n| - 1 \right\rfloor \quad n \in [-2, 2]$

$b = \left\lfloor a \right\rfloor + 2, 4 \Rightarrow a + \left\lfloor \left\lfloor a \right\rfloor + 2, 4 \right\rfloor = 4 \Rightarrow a + \left\lfloor a \right\rfloor + 2 = 4$
 $a + \left\lfloor a \right\rfloor = 2, 2 \Rightarrow 2 \leq a < 3 \Rightarrow 2 \left\lfloor a \right\rfloor = 2 \Rightarrow \left\lfloor a \right\rfloor = 1 \Rightarrow a = 1, 2$
 $b = \left\lfloor 1, 2 \right\rfloor + 2, 4 \Rightarrow b = 2, 4 \Rightarrow a + b = 2, 4 + 1, 2 = 3, 5$

$(1 + \sqrt{2})^5 + (1 - \sqrt{2})^5 = 191$
 حاصل بین صورت یکسان در الگوریتم اول و دوم
 نیز بیان صورت یکسان است
 $\hookrightarrow (1 + \sqrt{2})^5 = 191 - (1 - \sqrt{2})^5 \Rightarrow (1 + \sqrt{2})^5 = 191, \dots$

$(1 + \sqrt{2})^5 = 191$