

$$1a_1 - 2a_2 + 3a_3 - 4a_4 \dots$$

$$= a_1 + a_2 + a_3 + a_4$$

$$- 3a_2 + 2a_3 - 5a_4 + 4a_5$$

$$= a_1 - a_2 + a_3 - a_4 + a_5$$

$$- a_2 + 2a_3 - 3a_4$$

$$1a_{n+1} - 2a_{n+2} + 3a_{n+3} \dots$$

$$= (n+1)a_{n+1} - (n+2)a_{n+2} + \dots$$

$$- n \cdot AS(n+1, n+k)$$

$$G(U) = N \cdot 2$$

$$G(Q) = 1$$

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$$G(U) = 1$$

$$G(Q) = N$$

$$G(S) = \frac{U + (S \cdot U) \cdot N}{2UN + S - U}$$

$$S + U(2N - 1)$$

$$U(1 + SN)$$

$$U + (S - U)N < 2UN + S - U$$

$$U - UN - 2UN + U < -SN + S$$

$$U(2 - 3N) < S(1 - N)$$

$$U(3N - 2) > S(N - 1)$$

$$\approx U > \frac{S}{3}$$

$$\frac{S}{3} + \frac{2NS}{3} \approx \frac{N}{3} + \frac{2}{3}N^2$$