

$$\text{SS } \textcircled{c} R_n = \sum_{i=1}^n S_i = \frac{a_1(q^1-1)}{q-1} + \frac{a_1(q^2-1)}{q-1} + \frac{a_1(q^3-1)}{q-1} + \dots + \frac{a_1(q^n-1)}{q-1} =$$

$$= \frac{a_1}{q-1} [q^1-1 + q^2-1 + q^3-1 + \dots + q^n-1] = \frac{a_1}{q-1} [q + q^2 + q^3 + \dots + q^n - n] =$$

$$\textcircled{c} R_n = \frac{a_1}{q-1} \left[\frac{q(q^n-1)}{q-1} - n \right] = \frac{a_1 q (q^n-1)}{(q-1)^2} - \frac{n a_1}{q-1}$$

$$R_n(q-1) = \frac{a_1 q (q^n-1)}{q-1} - n a_1$$

$$n a_1 = R_n(1-q) + q S_n$$

(q-1) ? אז למד פונקציה (q)

שקול

$$\frac{q(q^n-1)}{q-1} = S_n \quad \text{זו הפונקציה}$$