Data values given: $s_0, s_1, s_2, s_3, s_4, s_5$

Step 1: To determine the coefficients a_1, a_2, a_3:

From the given recurrence relation and the data, we have (putting $n = 3, 4, 5$):

$$a_1 s_2 + a_2 s_1 + a_3 s_0 = s_3$$

$$a_1 s_3 + a_2 s_2 + a_3 s_1 = s_4$$

$$a_1 s_4 + a_2 s_3 + a_3 s_2 = s_5$$

These simultaneous equations need to be solved to obtain the three unknowns a_1, a_2, a_3.

Step 2: With these values of a_1, a_2, a_3, form the Characteristic Equation of the recurrence relation.

Then apply Characteristic Equation Approach to determine the solution with the given initial conditions: s_0, s_1, s_2.

Note: The value $s_n, n \geq 0$ is to be interpreted as the *deviation of the amount of data transferred in* n^{th} *instant from the average data transfer* (hence can be negative or positive) as against the statement in the question as the absolute amount of data transferred. Even though this does not effect the procedure or the result, it allows $s_n$to be negative.