

SC.912.L.16.3 – DNA Replication – Example 4 Answer

Four different segments of a DNA molecule are represented below.

Segment 1	Segment 2	Segment 3	Segment 4
T-A-G-G-C	G-G-T-G-A	G-A-T-T-A	C-A-A-T-G
A-T-C-C-G	C-C-A-C-T	C-C-A-A-T	G-T-T-A-C

There is an error in the DNA in which molecule?

- A. segment 1 only
- B. segment 3 only
- C. segment 2 and 3
- D. segment 2 and 4

Answer

B. Segment 3 only

In segment 3, Adenine is improperly paired with Cytosine. Adenine should be paired with Tyrosine, and Cytosine should be paired with Guanine in DNA.