

#ref #ret

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## 0.1 | Questions

You may discuss the following questions in groups but please produce your own individual responses here based on your own synthesis of the concepts. These questions are based on today's learning and **will be assessed** (reassessments are okay if needed). Submit your answers to this assignment.

*Siblings from the same parents are related but not identical.*

- 1) What are all the mechanisms that create this genetic variation between “full” siblings? Describe these processes in as much detail as possible.
  - 2) Do you expect there to be any genetic variation between identical twins (from the same fertilized egg, which split into two separate embryos early in development)? Explain your answer.
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## 0.2 | Answers!

### 0.2.1 | One

**S Phase** Cell division requires the replication of DNA. This replication occurs during the S phase, where ribosomal errors that go undetected lead to genetic variation.

**Crossing Over** During meiosis 1, DNA segments are swapped between homologous chromosomes. These homologs are lined up on

- crossing over
- independdant assortment
- dna errors in miosis
- enviomental

### 0.2.2 | Two