

**Section 12-4 Mutations (pages 307-308)****Key Concept**

- What are mutations?

**Introduction (page 307)**

1. What are mutations? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. Is the following sentence true or false? Chromosomal mutations result from changes in a single gene. \_\_\_\_\_

**Kinds of Mutations (pages 307-308)**

3. Mutations that occur at a single point in the DNA sequence are \_\_\_\_\_ mutations.
4. A mutation involving the insertion or deletion of a nucleotide is a(an) \_\_\_\_\_ mutation.
5. Complete the table of types of chromosomal mutations.

**CHROMOSOMAL MUTATIONS**

| Type          | Description   | Examples         |
|---------------|---|------------------|
|               |   | ABC•DEF → AC•DEF |
| Duplication   |   |                  |
|               | Part of a chromosome becomes oriented in the reverse of its usual direction |                  |
| Translocation |   |                  |