Classify the statements as belonging to either mitosis or meiosis.

Important for the growth of plants and animals

The daughter cells are exact copies of the parent cell

Exact copy of parent cell DNA is found in the daughter cells

Ensures the number of chromosomes stays the same in sexually reproducing organisms

Crossing over occurs, increasing the variety in offspring

Forms gametes (sex cells)

Happens only in gamete producing organs (testes, ovaries, pollen sacs, ovules)

Daughter cells have the same number of chromosomes as the parent cell

The daughter cells contain half the number of chromosomes as the parent cell

Four daughter cells are produced

Produces new genetic combinations in individuals

The parent cell becomes two daughter cells

Important for the repair of damaged tissue where new cells must be identical to the damaged cells

Halves the number of chromosomes in cells

Comparing Mitosis and Meiosis

|  |  |  |
| --- | --- | --- |
| **Aspect of Process** | **Mitosis** | **Meiosis** |
| What is it used for? |  |  |
| Where does it happen? |  |  |
| Number of divisions |  |  |
| Names of stages |  |  |
| Number of cells produced |  |  |
| Number of chromosomes in daughter cells |  |  |
| Name given to the number above |  |  |
| Does it contribute to variation in the population? Why or why not? |  |  |