

# Key Events in Meiosis

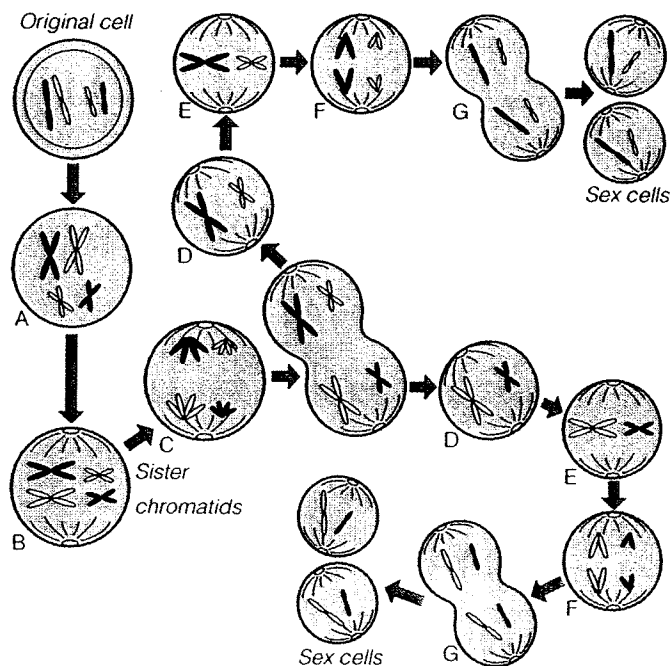
**Goal** • Review the steps of meiosis.

## Introduction

All reproductive cells are formed in the same way, through the process of meiosis. Meiosis involves two divisions of the chromosomes in the original cell.

## What to Do

Use the diagram and text below to answer the questions.



- Each chromosome doubles itself, forming two identical copies, called sister chromatids. How many chromosomes are there in the diagram? \_\_\_\_\_ How many chromatids? \_\_\_\_\_
- The doubled chromosomes come together in matching pairs. Where do they line up?  
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- The chromosomes now separate. Where are they pulled? \_\_\_\_\_  
Are the chromosomes that have been pulled to one end all the same, or are they different?  
\_\_\_\_\_
- The first division in meiosis has occurred as the cell divides, forming two new cells. What are the contents of these cells?  
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- The chromosomes again line up along the centre of each new cell. How does this step differ from step 2?  
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- Now the sister chromatids separate and move to opposite ends of the cell. How is this stage of meiosis very similar to mitosis? \_\_\_\_\_
- The cells divide. How many new cells are formed by meiosis? \_\_\_\_\_ Compared to the original cell, how many chromosomes do the four new cells have? \_\_\_\_\_