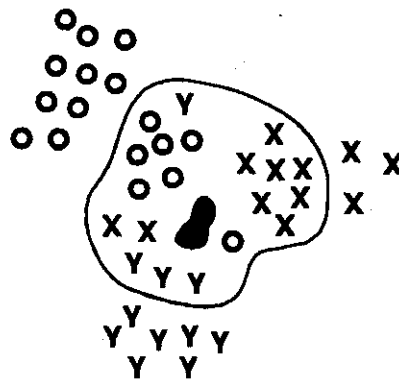## 4–5   What is diffusion?

Lesson Review

Write true if the statement is true. If the statement is false, change the underlined term to make the statement true.

_____   1. A <u>cell</u> is the smallest part of a substance that is still that substance.

_____   2. The movement of molecules from more crowded places to less crowded places is called <u>diffusion</u>.

_____   3. In order for a cell to carry on its life processes, oxygen and other materials must move into and out of the cell through the <u>nucleus</u>.

_____   4. Diffusion is controlled by the <u>nucleus</u>.

_____   5. Waste materials are carried out of a cell by <u>diffusion</u>.

_____   6. The movement of water through a membrane is called <u>osmosis</u>.

_____   7. Osmosis is controlled by the cell <u>nucleus</u>.

_____   8. The cell membrane has tiny <u>holes</u> in it that allow materials to pass into and out of the cell.

Skill Challenge

Skills: diagraming, using models, applying concepts

Each symbol on the diagram represents either a substance needed by the cell or a waste product. Study the diagram. Then, draw arrows on the diagram to show whether each substance will move into or out of the cell.

Answer the questions about the diagram.

1. Is substance X more likely a substance needed by the cell or a waste product? Explain. _____

_____

2. Is substance Y more likely a substance needed by the cell or a waste product? Explain. _____

_____

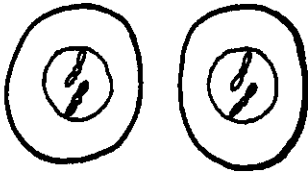## 4–6   How do cells produce new cells?

Lesson Review

Write the term that best completes each statement in the space provided.

1. The process by which cells produce new cells is called _____ .

2. Cell division is controlled by the _____ .

3. The cell parts that determine what traits a living thing will have are called

   _____ .

4. During cell division, each chromosome makes an _____ of itself.

5. During cell division, the nucleus divides in a process called _____ .

6. The new cells formed during cell division are called _____ cells.

7. During cell division, plant cells form a new cell membrane and a new _____ .

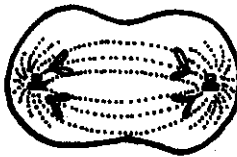8. The two cells formed by cell division are about _____ the size of the parent cell.

Skill Challenge
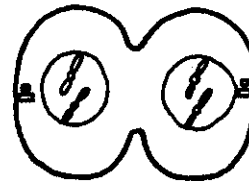
Skills: *analyzing, sequencing*

Study the drawings of the stages of cell division. Place the drawings in the correct order by writing the numbers 1 (first) through 5 (last) in the spaces provided.
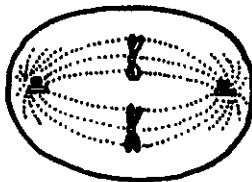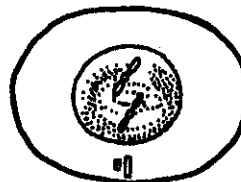
a. _____   b. _____   c. _____

d. _____   e. _____