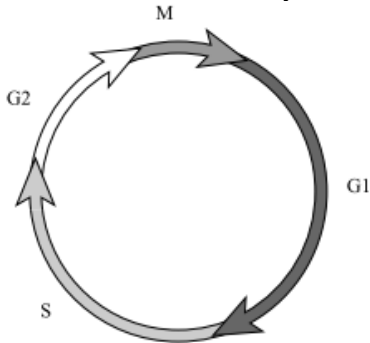


Mitosis MCAS Questions

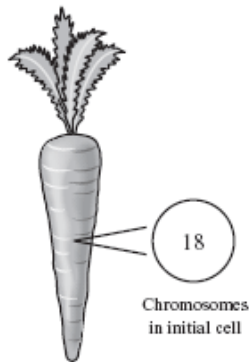
1. The diagram below shows the cell cycle.



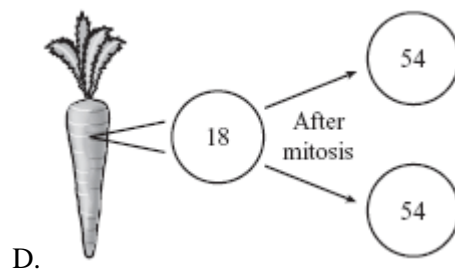
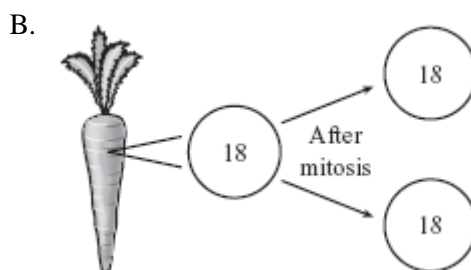
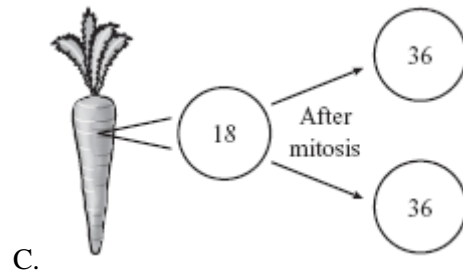
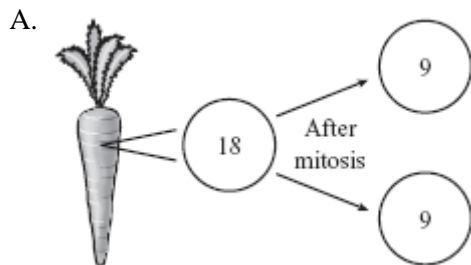
Which of the following activities occurs in the G1 phase?

- A. growth of the cell
- B. replication of the DNA
- C. formation of the mitotic spindle
- D. breakdown of the nuclear membrane

2. The diagram below provides information about a carrot cell.



A carrot cell contains 18 chromosomes. Which of the following diagrams illustrates the correct number of chromosomes in new cells produced by mitosis?



3. The illustration below represents a cell that is entering mitosis.



- A. Identify **one** function of mitosis.

The cell shown in the illustration has recently completed the synthesis phase (S phase) of the cell cycle and is in prophase of mitosis.

- B. What happened in this cell during the S phase in preparation for division? Describe the evidence that supports your answer.

- C. In your Student Answer Booklet, draw the end products that will be formed when this cell completes mitosis.