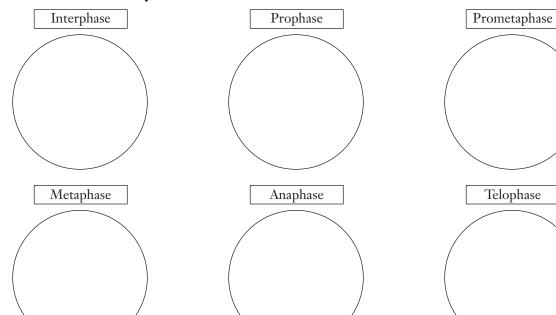


Name\_\_\_\_

## Mitosis Worksheet

### **Observations and Analysis**



#### Questions

- 1. Explain why root tip cells are selected for the study of mitosis.
- 2. Describe the principal cellular "events" that occur in each phase of the cell cycle.
- 3. What is the role of the kinetochore? Is it necessary for mitosis? Defend your answer.
- 4. How would the results for the percent of cells in each phase of the cell cycle have been different if your observations had not been restricted to the area of the root tip that is actively dividing?
- 5. How do the cells at the root cap differ from the mature cells away from the root cap?

# Cell Cycle Duration Worksheet

### Observations and Analysis

Table 1

Cell Cycle Phase	Number of Cells				% of Cells	Minutes
	Field 1	Field 2	Field 3	Total	in Phase	Spent in Phase
Interphase						
Prophase						
Prometaphase						
Metaphase						
Anaphase						
Telophase						
Total Number of Cells Counted						

### Questions, Activity 2

1. Based on the data in Table 1, rank the phases of the cell cycle based on the relative duration of each phase, from longest to shortest.

2. Draw and label a pie chart showing the relative amount of time a typical onion root tip cell spends in each phase of the cell cycle.