On-Line Mitosis Lab

NAME_____ PER____DATE_____

Website: http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/cell_cycle.html

Objectives:

- Access the on-line internet site above
- Draw and label the pictures for each phase of mitosis
- Calculate the % and time that cells remain in each mitotic stage.
- Determine which phase cells spend the greatest amount of time.

Materials:

- Internet access
- pencil and colored pencils
- calculator

Procedures: Procedures are outlined specifically in the online lab.

Drawings:



Data Table 1:

	Number of Cells				% of Total Cells Counted	Time in Each Stage
	Field 1	Field 2	Field 3	TOTAL		
PHASES						
Interphase						
Prophase						
Metaphase						
Anaphase						
Telophase						
	•		Total Cells Counted			

- 1. Calculate the percentage of cells in each phase by dividing each phases total by the total cells counted.
- 2. Calculating Time spent in each stage. Consider it takes an average 24 hours (1,440 minutes) for onion root tips cells to complete the cell cycle. You can calculate the amount of time spent in each phase of the cell cycle fro the percent of cells in that stage.

Percent of cells in stage x 1,440 minutes=_____minutes of cell cycle spent in stage.

Questions:

1. If your observations had not been restricted to the area of the root tip that is actively dividing, how would your results have been different?

2. Based on the data table 1, what can you infer about the relative length of time an onion roottip cell spends in each stage of cell division?