

Name \_\_\_\_\_

Part 1 of Pre-lab #3: Mitosis and Meiosis

1. What is the overall difference between mitosis and meiosis?

2. Why is it necessary to specifically study the onion root tip (in plants) or whitefish blastula (in animals) when studying mitosis?

3. Where in the plant root would you observe the most mitotic divisions? \_\_\_\_\_

Exercise 3A.1

4. Describe the major events that occur in each of the following stages of the cell cycle:

Interphase	
Prophase	
Metaphase	
Anaphase	
Telophase	

Exercise 3A.2

5. To figure out the relative length of time that a cell spends in the various stages of the cell cycle, how many cells must you count in all? \_\_\_\_\_ cells

6. How do you calculate the amount of time spent in each phase of the cell cycle?

7. Complete the following table:

	Number of Cells				Percent of Total Cells Counted	Time in Each Stage
	Field 1	Field 2	Field 3	Total		
Interphase	1,247	1,820	1,490			
Prophase	67	88	101			
Metaphase	39	67	53			
Anaphase	26	36	45			
Telophase	13	9	19			
<b>Total Cells Counted →</b>						