**Onion Root Tip Lab**

Name:

Find and draw a cell showing each stage of mitosis using the prepared slides.

# Prophase Metaphase Anaphase Telophase

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

1. What is a distinguishing **visible** feature of each stage of mitosis?

Prophase:

Metaphase:

Anaphase:

Telophase:

# Relative length of stages of mitosis

1. Tally the results of your cell counts and then calculate percentages.

# Your tally Class totals

**Percent of total (class)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Prophase** |  |  |  |
| **Metaphase** |  |  |  |
| **Anaphase** |  |  |  |
| **Telophase** |  |  |  |
| **Totals** |  |  |  |

1. Based upon the class results, order the stages of mitosis from shortest (1) to longest (4). After the longest and shortest stage, give a brief explanation of why that stage may have that time period.

Prophase

Metaphase

Anaphase

Telophase

1. Many of the cells of the roots are not undergoing mitosis, rather they are in a stage called

. Based upon the interpretations made above, interphase appears to be much

(shorter / longer) than mitosis. What processes occur in interphase cell prior to the onset of mitosis?

1. Once cell division ends, the cells will exist the cell cycle and enter the stage. Why is it incorrect to say that these cells are “resting”?