**Birzeit University**

**Department of Biology and Biochemistry**

**Biology111**

**Sheet Session #3: Cell Division and Genetics**

**Name and ID: Instructor:**

**Cell Division; Mitosis**

1. Fill the table (**SHOW YOUR CALCULATION**):

|  |  |  |  |
| --- | --- | --- | --- |
| Phases  | # of cells  | % of cells  | Time spent  |
| Interphase  |  |  |  |
| Prophase  |  |  |  |
| Metaphase  |  |  |  |
| Anaphase  |  |  |  |
| Telophase  |  |  |  |

1. Fill the blank:
2. why was carnoy used?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Why was HCl used? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Why were root tips used to study mitosis\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Why mitosis is important to life? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Genetics**

1. Fill the table (**SHOW YOUR CALCULATIONS**):

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Trait  | # of individuals with recessive trait  | Phenotypic ratio  | Frequency of dominant gene  | Frequency of recessive allele  | Frequency of heterozygous  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |