Practice Exam #3:

**Cell Division:**

1. Draw the cell cycle and identify the section that is affected by cancer?
2. How does a mutation cause cancer?
3. What is a mutation? How do mutations affect protein?
4. There are 2 categories of mutations that cause cancer (think of the pedals in a car). How does each affect a cell?

**Genetics:** Please refer to your genetics HW (BBQ) to practice monohybrid crosses, standard dominance, co dominance, incomplete dominance and sex linked crosses.

**DNA and RNA Structure:**



1. What are the three components of a nucleotide?

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

1. Role of the enzyme following enzymes:

|  |  |  |  |
| --- | --- | --- | --- |
| polymerase 3 | polymerase 1 | Helicase  | Ligase |
|  |  |  |  |

1. ****Fill in the blanks

**DNA🡪Protein**

1. Gene sequence:

 T T A C T T C C A G A C C A C T A

Replication: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Transcription: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Translation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_