Mitosis Internet Assignment

Log onto a computer, open Internet Explorer, and go to http://www.MissAbrams.com under 'links' click on Mitosis Internet Assignment, or go to it directly at: http://www.jogtheweb.com/run/Huk4LCHEsbzv/Mitosis-and-Cell-Cycle-Activities

- 1) **SITE ONE:** http://www.biologyinmotion.com/cell_division/
 - a. Click on "practice mitosis", follow the instructions
 - b. Once you have successfully completed mitosis, draw what is in each of the final 2 cells.



- 2) SITE TWO: http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/cell_cycle.html
 - a. Why are roots good for studying the cell cycle?
 - b. Although the root captures many cells in different phases of the cell cycle, what must we keep in mind?
 - c. Next to each major events write phase of mitosis in which it occurs. Answers will be used more than once.

i	Spindle fibers align the chromosomes along the middle
	of the cell nucleus
ii	The DNA duplicates to prepare for mitosis
iii	Cytokinesis may begin during this stage
iv	Chromatin in the nucleus begins to condense
V	New membranes form around the daughter nuclei
vi	Chromosomes are not clearly discerned in the nucleus

- vi. _____ Chromosomes are not clearly discerned in the nucleus vii. _____ The paired chromosomes separate at the kinetochores
 - and move to opposite sides of the cell
- viii.
 The nuclear membrane dissolves

 ix.
 The chromosomes disperse and are no longer visible
 under the light microscope
- 3) SITE THREE: http://www.biology.arizona.edu/cell_bio/activities/cell_cycle/01.html Each time you are presented with a cell (on your computer screen), click on the phase to which it belongs. If correct, it will place that cell into that cell cycle phase box, then you will be given a new cell to identify. You will identify a total of 36 cells. After correctly identifying all cells/phases, count up the number of cells in each category/box, and enter the appropriate information into the table below:

	Interphase	Prophase	Metaphase	Anaphase	Telophase	Total
number of cells						36
percent of cells			-			100%

a. When finished with <u>all</u> internet portions: make a bar graph (using the number of cells) **AND** a pie chart (using the percent of cells) to show your information from the chart. Use colored pencils, crayons, or markers... and make it neat!



4) SITE FOUR: http://www.nobel.se/medicine/educational/2001/cellcycle.html

- a. Read each screen then use arrows to click to the next. Answer the questions as you go.
- b. What type of cells divides very often?
- c. Play the cell cycle game, be sure not to use up all your energy and kill more cells!!
- d. Keep track of how many times it takes you to win: _____
- e. If cells divide too fast, mutated cells may form a clump called a ______
- f. View the cell film. Write something you thought about it: _____
- 5) **SITE FIVE**: <u>http://www.pbs.org/wgbh/nova/cancer/grow_flash.html</u>
 - a. Read each screen then use arrows to click to the next. Answer the questions as you go. What type of cancer is being shown:
 - b. What is angiogenesis?
 - c. What happens when the tumor has a new blood supply?
 - d. The lump is first detectable when it is the size of a small ______
 - e. What makes most tumors so lethal?
 - f. To form a new colony, a tumor cell must do what?
- 6) Visit at least four "<u>Other Mitosis Practice Websites</u>". Complete the information below: <u>Letter</u> <u>What you did at that site</u>:
- 1.
 _____:

 2.
 _____:

 3.
 _____:

 4.
 _____: