

## BIOLOGY WORKSHEET

### Human Populations

Name: \_\_\_\_\_

(Coordinates with IntlPop program at <http://simon.cs.vt.edu/geosim/IntlPop/>)

#### World

- 1) What was the: a) 1990 population of the world? \_\_\_\_\_  
b) 1990 Total Fertility Rate? \_\_\_\_\_  
c) 1990 Life Expectancy? \_\_\_\_\_
- 2) If 1990 conditions persist, what will the population of the World be in:  
a) the year 2010? \_\_\_\_\_  
b) the year 2040? \_\_\_\_\_
- 3) If total fertility rate had begun to decline to 2.1 (approximately the replacement level) in 1990 completing the change in 2010, what would the population of the world be in the year 2040? (To simulate this change, select the Total Fertility Rate button and adjust the rate to 2.1. Also set the effective year to 2010. Close the window and run the simulation). \_\_\_\_\_
- 4) What would the world's population be in the year 2040 if, at the same time that the total fertility rate declined worldwide (same as #3 above), life expectancy increased to 68.1 years? Use the same modeling procedure as in #3, that is, begin both changes in 1990 have them complete in 2010. \_\_\_\_\_

#### Europe

- 1) What was the:  
a) 1990 population of Europe? \_\_\_\_\_  
b) 1990 Total Fertility Rate? \_\_\_\_\_  
c) 1990 Life Expectancy? \_\_\_\_\_
- 2) If 1990 conditions persist, what will the population of Europe be in:  
a) the year 2010? \_\_\_\_\_  
b) the year 2040? \_\_\_\_\_
- 3) If, due to declining numbers, the governments of Europe developed incentives to increase the total fertility rate to 2.4 with the change beginning in 1990, and gradually increasing to completion in 2010, what would the population of Europe be in the year 2040? \_\_\_\_\_