Real Population Growth

Discussion:

1. When we talk about the population growth rate of a country being 2%, what does that tell us about the type of growth – linear or exponential?

2. Look back to section 8A , page 478 – the two key facts about exponential growth.   If human population growth is exponential, what do these two facts tell you?

3. Look at section 8C, page 491, the graph that is Figure 8.3.   What does it tell you?

4. Look at section 8C, page 498, the graph that is Figure 8.4. What is the difference between the two growth models: exponential and logistic?

5. Look at section 8C, page 495, the graph that is Figure 8.5.   What is the difference between the two growth models: logistic and "overshoot and collapse"?

Activity 1: (Groups) Discuss and answer Quick Quiz, questions 1-4. (For number 2, in 2009, the world pop'n was 6.8 billion. Then assume the growth number in question 1 was correct.)

Activity 2: (Groups)   Read Examples 1 and 2 on pages 491 and 492, and then the discussion of carrying capacity on page 493.   Answer the rest of the questions on the Quick Quiz.

Activity 3: (Groups)   17, 24

Activity 4: (Groups)   Follow Example 3 to do the two different steps for Exercise 30.
        Step 1. Find the base growth rate, r.
        Step 2.   Find the predicted growth rate for the 2009 population of 6.8 billion.

HW 10 and Quiz 10.   Due Wed. April 3 at the beginning of class

8C: 1, 2, 3, 4, 5, 6, 8, 9, 11, 13, 15, 19, 20, 21, 23, 25, 27 (for a person 17 years old in 2009), 29, 33

8D: 1, 3, 4, 5, 7, 9, 11, 13, 15, 19, 23, 25, 27, 31, 33, 35, 37, 39

Quiz 10: 8C: 16, 28, 34   8D: 6, 8