Worldwide Population Trends

- Even while the global population growth rate has continued to increase, the reduction has been offset by the ever larger total on which it is based (world population is growing at >80 million people/year).

- The slowest growing countries (under 1% annual increase) lie in the economically wealthier zone extending from the __________ __________ and Canada across Western __________ to ________ and Australia. Not all these countries are rich, in fact many nations of the former __________ __________ are hindered by adverse political and social conditions.

- List three countries that are experiencing negative population growth:

- One region that is experiencing rapid population growth is ____________ __________ (>2.5%) due primarily to the end of colonialism and the failure of national economies. Another region with rapid growth is ____________ ________ (>2.3%) primarily due to cultural traditions and constricted opportunities for women.

Views on Population Growth

- __________ __________ = in 1798 he published, Essays on the Principle of Population, which stated that:
  - Human population grows ____________ (2, 4, 8, 16, …), doubling every generation, whereas …
  - Food production grows ____________ (1, 2, 3, 4, …). The result is that there would be mass starvation until population growth was checked by wars, epidemics, famines,…
  - His theories were questioned especially around the late 1800s because 1) he did not anticipate the technological and industrial improvements in ____________, and 2) the ____________ of population growth rates in Europe due to the industrial revolution.
  - __________ __________ = a revival of enthusiasm for his ideas accompanied the alarming increase in world growth rates after World War II. With slight modifications, his theories can apply to today.

- __________ __________ = German social philosopher who discussed socialist theories in the mid 1800s:
  - Population growth is not the primary cause of poverty and suffering (as ____________ stated);
  - ____________ = economic system that promotes the exploitation of __________ and the unequal distribution of ____________ (land, capital, etc…) - the primary cause of poverty and suffering;
  - ____________ = economic system that promotes the equal __________ of resources and the __________ obtained from economic production among the people – will solve problems for all.
  - __________ theories have not held up very well. The former USSR and China both adopted family planning policies, and have both embraced capitalist ventures (China on a limited scale).
Views on Population Growth (cont’d)

- __________ ____________ = wrote The Conditions of Agricultural Growth (1965), stating another theory:
  - Population growth can stimulate greater ____________ in agricultural development, producing greater amounts of food (the opposing viewpoint of ____________).
  - It is more realistic to view population growth as a stimulant of ____________ development of technology, than to view population growth as being ____________ by agricultural output.
  - One major deficiency in her theory is that intensification of agriculture in an area can lead to the ____________ of nutrients in the soil, and the consequent reduction in the amount of food produced.
- ____________ ____________ = wrote The Conditions of Agricultural Growth (1965), stating another theory:

Dimensions of Population Growth

- ____________ ____________ ____________ = the level at which a national population ceases to grow.
  - Some countries have achieved this; their major problems will involve the aged, not the young.
- ____________ ____________ ____________ = the time required for a population to double in size. The formula to determine this number = 70 / rate of increase (this number reflects the current trend, it is not an absolute certainty).
- Fill in the doubling time for the table to the right:

<table>
<thead>
<tr>
<th>Rate of Increase (%)</th>
<th>Doubling Time (yrs.)</th>
<th>Example (1998)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.50</td>
<td>Ireland</td>
<td></td>
</tr>
<tr>
<td>0.60</td>
<td>United States</td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>China</td>
<td></td>
</tr>
<tr>
<td>2.00</td>
<td>Costa Rica</td>
<td></td>
</tr>
<tr>
<td>3.50</td>
<td>Yemen</td>
<td></td>
</tr>
</tbody>
</table>

- ____________ ____________ = rapid growth of the world’s population over the past century.

Population Structure

- ____________ ____________ ____________ = graphic representation (profile) displaying the composition of a population; shows the percentages of the total population by age and sex, normally in five-year groups known as ____________.
- A pyramid with a wide base and a narrow top indicates a country with relatively ____________ growth rates, whereas a more rectangular “pyramid” indicates a country with relatively ____________ growth rates.
**Demographic Cycles and Change**

- **________ _________ = difference**
  between the number of births and the number of deaths during a specific period (usually 1 year).
- **________ _______ rate = CBR; number of live births per year per thousand people in a population (low birth rates are associated with modernization – industrialization and urbanization – except for China).**
- **________ _______ rate = CDR; number of deaths per thousand; also known as the mortality rate. Should be viewed in the context of _______ mortality (deaths of infants before reaching their first birthday).**

- **________ ______________ rate = number of children born to women of childbearing age; usually reported as the number of children per woman.**

To calculate demographic change in a country or region, we use a simple formula: TP = OP + B - D + I – E

TP = ________ ___________; OP = __________ ___________; B = _________; D = ___________; I = __________; and E = ____________.

- **________ ______________ model = multi-stage model based on Western Europe’s (UK’s) experience of changes in population growth due to industrialization.**
  - **________ _________ stage = 1st; high fertility and high mortality; highly variable population, but with little long-term growth (no modern country exists in this stage).**
  - **________ _________ stage = 2nd; high fertility and declining mortality; leads to increasing growth (many developing countries are in this stage today).**
  - **________ _________ stage = 3rd; declining fertility and mortality, but with already-low mortality, population growth continues (e.g. the United States is in this stage).**
  - **________ _________ stage = 4th; low fertility and low mortality; very low rate of growth (some countries are actually experiencing negative growth such as Russia, Germany, and Japan).**

- **The actual demographic transition is represented by stages 2 and 3, in which birth and death rates fall.**
- **________ _________ stage = 3rd; declining fertility and mortality, but with already-low mortality, population growth continues (e.g. the United States is in this stage).**
- **________ _________ stage = 4th; low fertility and low mortality; very low rate of growth (some countries are actually experiencing negative growth such as Russia, Germany, and Japan).**

- **There are quantitative differences between the situation in developing countries today with that of nineteenth century Europe. When Europe’s population revolution began, the base was much smaller (Britain had between 6-7 million people). It is unwise to assume that all countries will progress in the same way.**
Population Changes in the Past

Limits on Growth

- Epidemics and plagues: Between 1348 and 1351 Europe was ravaged by the __________ __________, killing around a quarter of the population.

- __________ in India and China during the 18th and 19th centuries caused millions of people to perish. In Europe, unusual weather conditions (e.g. The “Little Ice Age”) caused crops to fail.

- __________ also limited the population through the deaths of several men and collateral damage to the civilian populations.

Expansion of Growth

- __________ ______________ ______________ = when farming methods improved, crop yields increased, storage capacities were expanded, and distribution systems were improved; resulted in a marked increase in the growth rate of Europe beginning in the 18th century.

- __________ ______________ = greatly increased growth rates in Europe beginning in the 19th century due to improved sanitation facilities and modern medical practices (e.g. vaccination).

- During the first stages of European colonialism, the early immigrants decimated native populations through conquest, slavery, and the introduction of __________ such as smallpox. However, when European imperialism took hold beginning in the 19th century, they brought the newfound methods of sanitation and medical techniques, which greatly ____________ growth rates.

- European imperialism ____________ the impact of periodic natural checks on population growth that __________ had predicted.

The map above is from pgs. 66-67 from the text. Key points to ponder: Regions with the highest growth rates includes Subsaharan Africa, South Asia, and Central America. Regions with the lowest growth rates are located across the north including the U.S. and Canada, Europe, Russia, Japan, and Australia.