The following information corresponds to Chapter 2 in your textbook. Fill in the blanks to complete the definition or sentence. Note: All of the following information in addition to your reading is important, not just the blanks.

Where in the World Do People Live and Why?

________ = the study of patterns and rates of population change, including birth & death rates, migration trends, and evolving population patterns (population geography).

________ population density = total number of people divided by the total land area; subject to error as it does not take account of clustering. (US: 71/sq. mi. Bangladesh: 2,478/sq. mi.)

________ population density = number of people per unit of area of arable land (suitable for agriculture); subject to error since farmlands vary in terms of productivity. (Egypt: 180/sq. mi.; physiologic: >9,000/sq. mi. (98% of pop. occupy 3% total area))

________ = the arrangement of something across Earth’s surface, where individuals or groups (depending on scale) live. A _________ map is the best representation.

Three Major Population Concentrations (contain > ____ billion out of > 6 billion people)

________ = largest concentration; China, Japan, North and South Korea (>1.5 billion people). Ribbon-like extensions of dense population (clustered near rivers; majority of people are farmers)

________ = second major concentration; India, Pakistan, Bangladesh, Sri Lanka (1.5 billion). Also ribbon (finger)-like extensions of dense population (e.g. Ganges River in India), majority are farmers as well.

________ = third major concentration; Britain to Russia, including Germany, Poland, Ukraine, Belarus, Netherlands, Belgium, parts of France, northern Italy (700 million). Ribbon-like extension deep into Russia (follow Europe’s coal deposits, not fertile river valleys). Ribbons are concentrated along numerous cities & towns (due to the Industrial Revolution; Germany – 85% urban, UK - >90%).

________ = a far fourth; east-central US and southeastern Canada (<200 million). Like Europe, much is concentrated in major cities.

________ = huge urban agglomeration (e.g. “Bosynwash”; Boston, New York, & Washington D.C.)

________ ________ = another population concentration focused on the Nile Valley and Delta; the _________ of agglomeration resembles Asia, but not the _________.

________ = increases a country’s ability to support population; Australia – could not support tens of millions of Chinese farmers, but could support tens of millions of Japanese “white-collared” workers.
**Why Do Populations Rise or Fall in Particular Places?**

- **________ ________** = in 1798 he published, *Essays on the Principle of Population*, which stated that:
  - Human population grows ___________ (2, 4, 8, 16, …), doubling every generation, …
  - 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.
  - In the late 1960s, _______ ________ wrote *The Population Bomb*, in which he warned that the world’s population was increasing too quickly – outpacing food production.
  - ______-__________ = 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).

- **________ ________** = 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.

- **________ ________** theory states that the world has an abundance of resources and humans will never use them all up; this is a very optimistic, yet unrealistic view.

### Population Growth

- **________ ________** = 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).

<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></td>
<td>Ireland</td>
</tr>
<tr>
<td>0.60</td>
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<td>United States</td>
</tr>
<tr>
<td>1.00</td>
<td></td>
<td>China</td>
</tr>
<tr>
<td>2.00</td>
<td></td>
<td>Costa Rica</td>
</tr>
<tr>
<td>3.50</td>
<td></td>
<td>Yemen</td>
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</tbody>
</table>

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

- **________ ________** = 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: \( TP = OP + B - D + I - E \)

\[ TP = \text{________ } \text{________}; \text{ OP = } \text{________ } \text{________}; \]

\[ B = \text{________}; \text{ D = } \text{________}; \text{ I = } \text{________}; \text{ and E = } \text{________}. \]
The Demographic Transition

- Model = multi-stage model based on Western Europe’s (UK’s) experience of changes in population growth due to industrialization.

- Stage 1 = 1st; high fertility and high mortality; highly variable population, but with little long-term growth (no modern country exists in this stage).

- Stage 2 = 2nd; high fertility and declining mortality; leads to increasing growth (many LDCs are in this stage today).

- Stage 3 = 3rd; declining fertility and mortality, but with already-low mortality, population growth continues (e.g. the United States is in this stage).

- Stage 4 = 4th; low fertility and low mortality; very low rate of growth (some countries are actually experiencing negative growth such as Russia, Germany, and Japan).

* When Europe’s population revolution began (19th c.), the base was much ______________ (Britain had between 6-7 million people).  It is unwise to assume that all countries will progress in the same way (quantitative differences b/w MDCs and LDCs).

- Birth Rate = 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.

Why Does Population Composition Matter?

- 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 (typically a __________ country), whereas a more rectangular “pyramid” indicates a country with relatively ________ growth rate (typically a __________ country).

Population Growth: Environments and natural resources strained by the needs of a mushrooming population. Population has increased ___________ from its level a hundred years earlier.

- Food Supply: 1970’s – advances in __________ (green revolution) along with ________ global temperatures led to increased crop yields; 2000’s – a combination of ________ growth and changing ________ habits (more meat) could lead to a global crisis (many developing nations are growing too many ________ grains rather than ________ grains)

- Health: Rapidly growing populations can produce ________ of disease (e.g. in remote equatorial areas). Infant and child mortality rates are mostly matters of concern in __________ nations.

- Status of Women: Statistics often fail to reflect differences between men and women. (Afghanistan’s literacy rate: 31% total; 47% male, 15% female). When governments instituted measures to reduce ________ growth, the impact fell disproportionately on females (e.g. China’s “One Child” policy: infant girls abandoned, malnourished, deprived of medical care)

- Migration: Governments have tried to limit immigration with meager success (U.S. Chinese Exclusion Act – 1882). Major population movements may occur ________ a country (e.g. ethnic conflict, civil war, impoverishment in rural areas,…).

- Reliability of Data: ________ and population data are based on careful assessments, yet are inherently unreliable; cost, organization, and reporting are major obstacles.