**Answer questions in your notebook. We will have a GMO debate next class and you need to be prepared. You can only use your notes and winning team gets to use notes on quiz.**

1. Define the following diseases associated with undernutrition:

Anemia-

Lack of vitamin A-

Goiter-

Kwashiorkors-

Marasmus-

1. What are the 3 primary crops grown?
2. Fill in the table about:

|  |  |  |
| --- | --- | --- |
| **Advantages** | **Industrial Meat Production:**  **Animal Feedlots** | **Disadvantages** |
|  |  |

1. Fill in the table about:

|  |  |  |
| --- | --- | --- |
| **Advantages** | **Industrial Agriculture** | **Disadvantages** |
|  |  |

1. What are some examples of crops grown in plantation agriculture?

**MATH! Show all your work!**

1. If food production in your area grows from 60,000 bushels to 100,000 bushels over a decade, **calculate** the percent increase in food production.
2. Although at least 3,000 species of plants have been used for food at one time or another, most of the world’s food now comes from only 16 species. Calculate the % difference.
3. Calculate your body mass index (BMI). BMI = weight (kg)/height(m)2
4. Why does meat use more inputs than plant foods?
5. List several benefits and costs of fish and shrimp farming.
6. Why are antibiotics used in livestock production?
7. What is rotational grazing? What are its benefits?

**Green Revolution/ GMO Debate**

1. The continuous growth of the human population has led to an increase in large-scale industrial agriculture globally.  This type of agricultural practice has had profound effects on various levels of our ecosystem.
   1. What agriculture practices are associated with the Green Revolution, and for each practice, what are the consequences or benefits?
   2. What are the impacts of the Green Revolution in developing countries/ developed countries?
   3. What are the environmental impacts of the Green Revolution?
   4. What is the best solution for feeding a growing population?

**GMO Debate**

1. Are GMOs dangerous to eat?

1. Labeling is unnecessary because GMOs are safe to eat.

1. Why are most U.S. corn and soybeans GM varieties?
2. We’ve been genetically modifying crops for thousands of years, why should we be concerned now?

1. Are opponents to GMOs anti-science?

1. GMOs only benefit big agriculture and corporations.