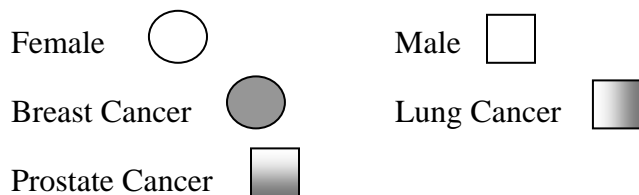
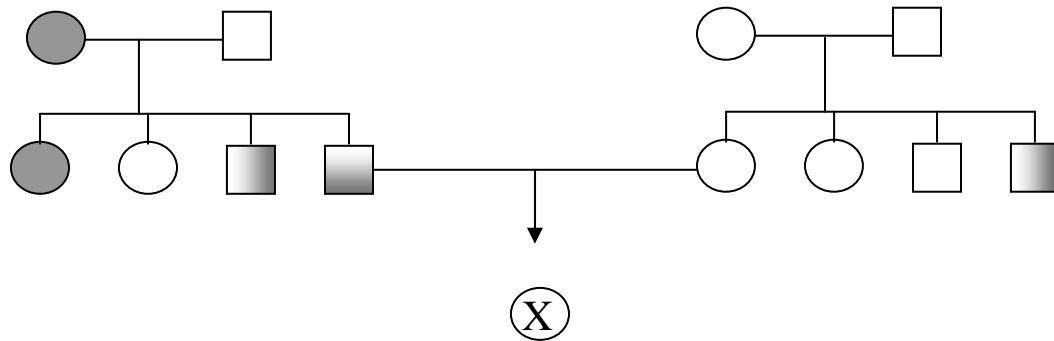
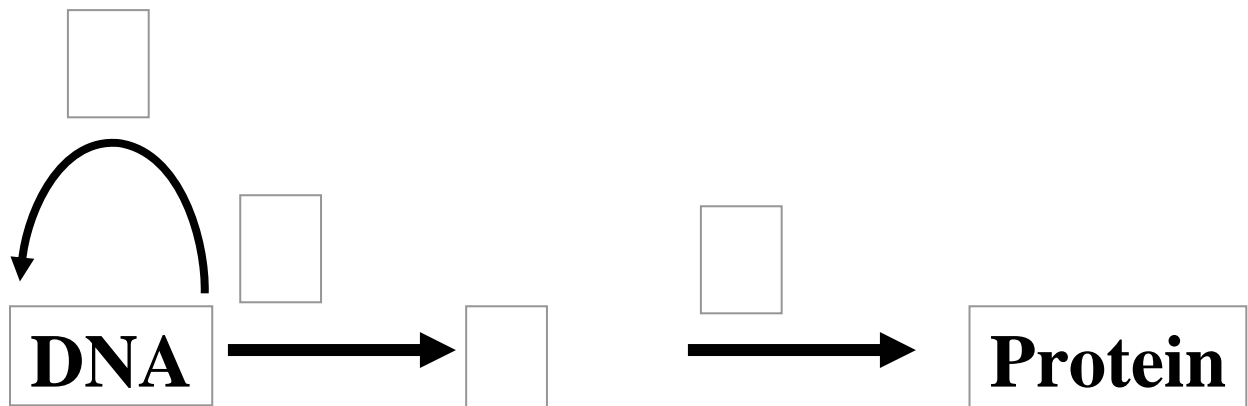


1. Define morality. What are two requirements of morality?
2. What is cultural relativism and how does it impact morality?
3. Define cloning. What are the two different methods of animal cloning? Describe each in detail.
4. How might the Christian approach to moral decision making handle human cloning and why?
5. Two candidate genes for breast cancer are BRAC1 and BRAC2. Mutations in one of these two genes are found in 90% of tumors from breast and ovarian cancer. Women with heredity mutations in one of these two genes are 30 times more likely to develop breast cancer by age 50, while men have a three time higher risk of developing prostate or colon cancer if they inherit this mutation. Given the following pedigree determine the probability of individual X carrying one of these mutations.



7. The government of Iceland has created a database with the entire population's genetic code. They are looking for ways to cure Osteoarthritis, a crippling bone disease. How would the Utilitarian approach and Categorical Imperative approach decide if creating this database is moral?
7. Explain the Egoism approach. Give an example of how this could be used.
8. What are two of the major differences between "genetically modified" and "conventionally breed" crops? Explain each of your answers.
9. How does the character introduced into the "genetically modified" crop behave from one generation to another? (i.e. in terms of Mendelian inheritance)
10. Would you eat a GMO? Explain your reasoning.

1. Give **three different** examples of Genetically Modified Organisms and describe how each modification improves that organism.
2. What are **three of the major** concerns/questions regarding Genetically Modified Organisms? Provide some detail explanation for each.
3. What is DNA sequencing? Define and simply describe the process.
4. Why was it important to know the entire human genome sequence?
5. Given the following figures fill in the blank boxes:

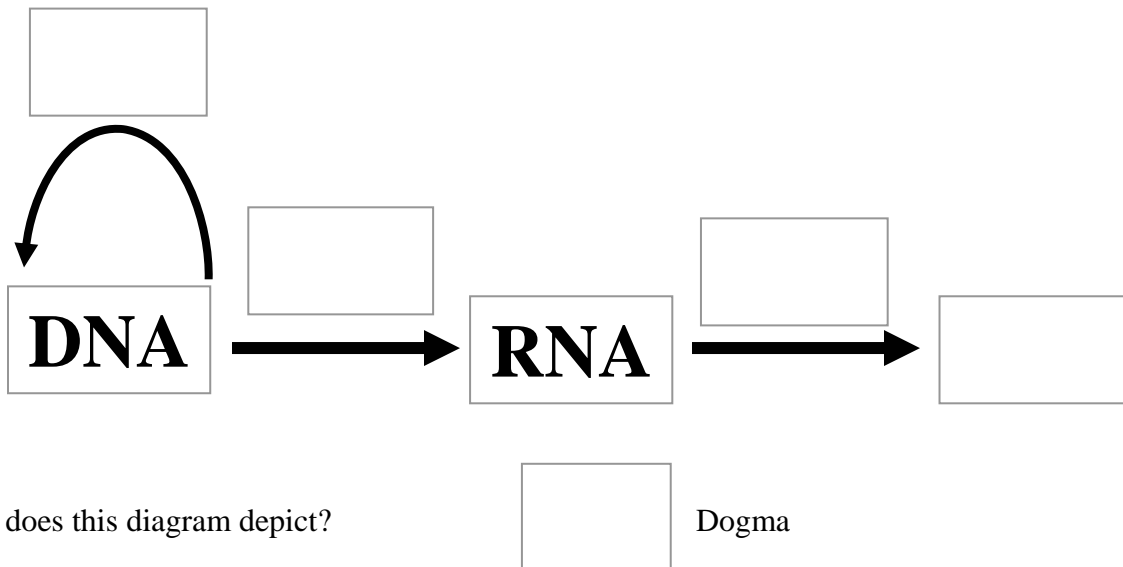


What is does this diagram depict?

Dogma

6. What is the Utilitarian approach in moral decision making? Provide one good **genetic** example.
8. Define cloning. What are the **two different** methods of animal cloning? Describe each in detail?
9. What are the major concerns/questions regarding “Patenting of genes”? Provide some **detail explanation for at least two of them.**
10. What are the major concerns/questions regarding “Genetic Testing”? Provide some **detail explanation for at least two of them.**
11. What are the major concerns/questions regarding “Frozen embryos”? Provide some **detail explanation for at least two of them.**

1. Name and explain in detail **three major differences** between “Genetically Modified” and “conventionally breed” crops?
2. How would the “**Christian**” and “**Utilitarian**” approaches to moral decision making handle the issue of “**Frozen embryos**”? What are the differences and similarities? Explain your answer in detail.
3. The government of Iceland has created a database with the entire population’s genetic code. They are looking for ways to cure Osteoarthritis, a crippling bone disease. How would the **Utilitarian** and **Categorical Imperative** approaches decide if creating this database is moral?
4. What is cultural relativism and how does it impact morality?
5. Given the following figures fill in the blank boxes:



6. What are **three advantages and disadvantages** of producing GMO crops? Describe each in detail.
7. What are the major concerns/questions regarding “Genetic Testing”? Provide **detailed explanation for at least two of them.**
8. What are two major concerns/questions regarding “Patenting of genes”? Provide **detailed explanation for at least two of them.**
9. How does genetics **directly** affect you as a person? Give three examples and explain how you approach them with the knowledge you have from this class.
10. From the Presidential speech handout, what were the president’s decision on a) human cloning and b) stem cell research? Provide details on what guided his decision-making.