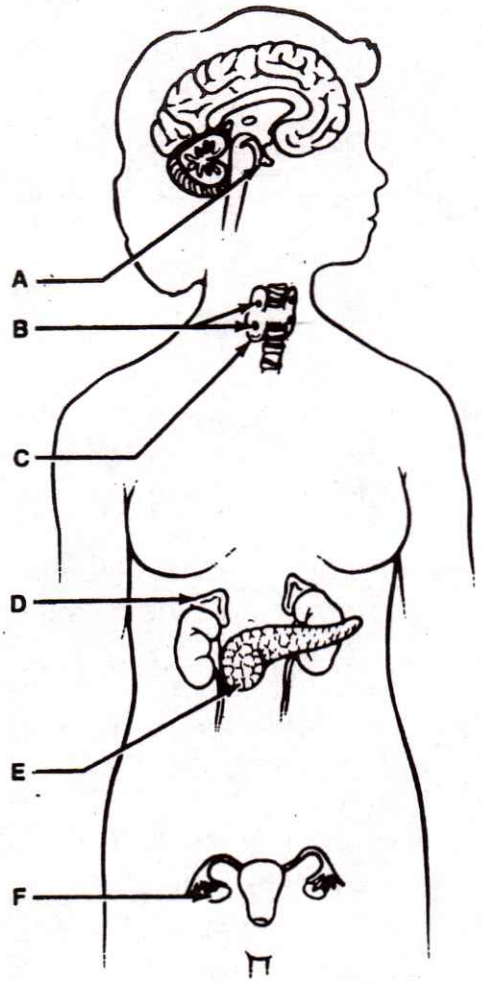
Do Now # 3.11

Name _____ Date _____ 20 points

*Match the structures in the diagram with the phrases below. Write the correct letter on the line.*




_____ 1. parathyroids

_____ 2. pancreas

_____ 3. ovary

_____ 4. adrenal

_____ 5. thyroid

_____ 6. pituitary

_____ 7. control calcium balance

_____ 8. produces growth hormone

_____ 9. controls how fast cells release energy from food

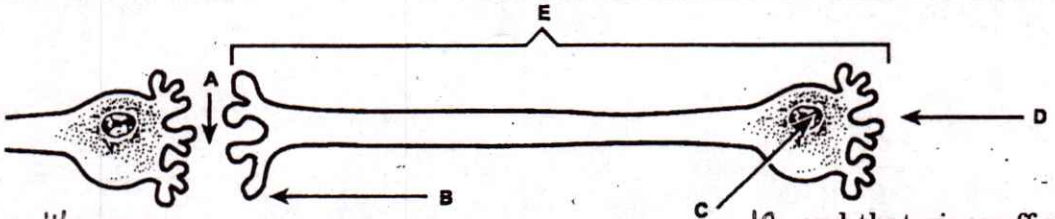
_____ 10. brings about female development

_____ 11. forms insulin

_____ 12. helps body during emergency

_____ 13. forms thyroxine

*Use the diagram to answer the questions. Write the letter of the correct structure on the line.*




_____ 14. neuron

_____ 15. axon end

_____ 16. synapse

_____ 17. nucleus

_____ 18. end that gives off chemical messenger

_____ 19. end that receives chemical messenger

_____ 20. dendrite end

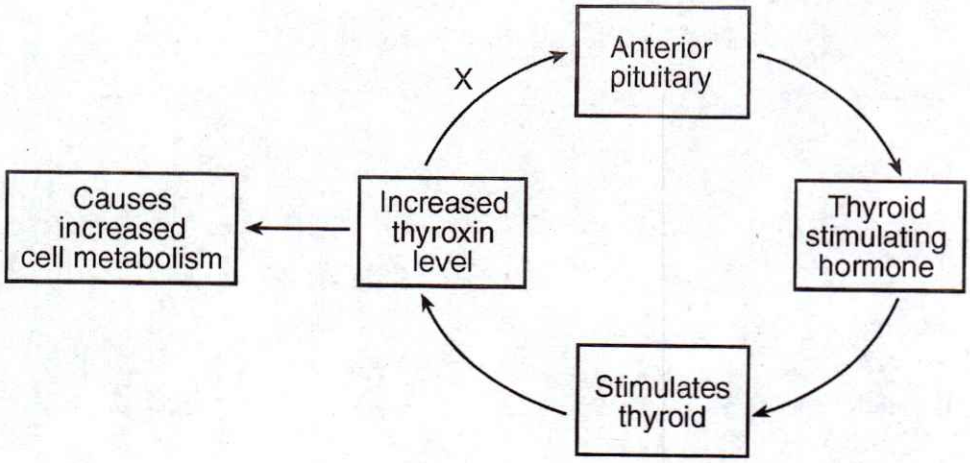
Name:

# Thyroid and Pancreas

Homework 3.11

10 points

Base your answers to questions 1 and 2 on the diagram below of activities in the human body.




1. Describe the action represented by the arrow labeled *X* in the diagram and state *one* reason that this action is important. (2 points)

2. Identify one hormone involved in another biological relationship and an organ that is directly affected by the hormone you identified. (2 points)

3. Base your answer to the following question on the information below and on your knowledge of biology.

Cell communication involves a cell detecting and responding to signals from other cells. Receptor molecules play an important role in these reactions. Human cells have insulin receptors that are needed for the movement of glucose out of the blood.

A typical human liver cell can have over 90,000 insulin receptors. If a genetic error occurred, resulting in each liver cell in a person having only 1,000 insulin receptors, what specific effect would this have on the liver cells? (2 points)

4. A drastic change in the metabolic rate of a human would most likely result from the (2 points)

(1) oversecretion of the salivary glands
(2) overproduction of auxins
(3) deterioration of the skeletal system
(4) malfunction of the endocrine glands

5. What will most likely result if a diabetic injects an overdose of insulin? (2 points)

(1) a serious infection in the pancreas
(2) an increase in the production of pancreatic enzymes
(3) an accumulation of wastes in the bloodstream
(4) a dangerous drop in blood sugar levels