Taking Temperatures

Maintaining thermal regulation

Name(s) _____ Date _____

Instructor/Class _____

Please answer the following questions:

1. Some parts of the rat are darker than others, which means they are _____ than the lighter areas.

2. Why is the snake almost invisible? (Hint: Remember that this is an infrared image.)
   - ❍ The snake doesn't show up because it's cooler than the room.
   - ❍ The snake escaped and is on the loose in the room.
   - ❍ The snake is the same temperature as the air in the room.

3. Which statement(s) would be an accurate prediction? (No peeking ahead at the next stack!)
   - ❍ The rat will be invisible.
   - ❍ The rat will look slightly brighter.
   - ❍ The snake will still be invisible.
   - ❍ The snake will be more visible.

4. Choose the appropriate word to make an accurate statement:
   The temperature of the _____ was affected most by the heat lamp.

5. What range of values do you see?
   - ❍ Approximately 32-35
   - ❍ Approximately 45-135
   - ❍ Approximately 120-135

6. Which statement(s) is/are correct?
   - ❍ The average pixel value is the same for the rat and the surrounding air.
   - ❍ The rat shows a much lower average pixel value than the air.

- ❍ The air is cooler than the rat.
- ❍ The rat is unable to regulate its internal temperature independently of the air around it.

7. The slope of the line is represented by ***b***. Look at the graph carefully. What is the approximate slope of your line?
   - ❍ Approximately 7.2-7.8
   - ❍ Approximately 0.120-0.135

8. Move your cursor all over the image. What is the temperature range?
   - ❍ Approximately 47° C - 125° C
   - ❍ Approximately 23° C

9. Choose the appropriate words to make the statement accurate. (Hint: Did you remember to put the values you measured in the left column?)

   The rat's body temperature _____ .

   The snake's body temperature _____ .

10. Choose the appropriate word to make the statement correct.

    Both the snake and the sungazer are examples of _____ animals,while the rat is _____.