



Breathing Lessons

Diagnosing lung disease

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.

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- 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 _____.