

## HEAT TRANSFER PRACTICE QUESTIONS

Read chapter 10 in your textbook and answer the follow questions on a separate sheet of paper. Be sure to restate the question in your answer.

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1. What is the role of "loose" electrons in heat conductors?
2. What happens to the pressure of air as the air rises? What happens to its volume? Its temperature?
3. Which normally cools faster, a black pot of hot water or a silver pot of hot water? Explain.
4. Is a good absorber of radiation a good emitter or a poor emitter?
5. All objects continuously absorb energy from their surroundings. Why then doesn't the temperature of all objects continuously increase?
6. What determines whether an object is a net emitter or a net absorber of radiant energy?
7. You can comfortably hold your fingers beside a candle flame, but not very close above the flame. Why?
8. Consider two equal size rooms connected by an open door. One room is maintained at a higher temperature than the other one. Which room contains more air molecules? Explain.
9. In a mixture of hydrogen and oxygen gases at the same temperature, which molecules move faster? Why?