Part 2

Decide which of the following materials are conductors and which are insulators. If the material is a conductor, write C before the number. If the material is an insulator, write I.

_____ **1.** air

_____ **2.** copper wire

_____ **3.** rubber

_____ **4.** glass

_____ **5.** aluminum

_____ **6.** silver

_____ **7.** iron

_____ **8.** wood

_____ **9.** plastic

_____ **10.** down

Heat Transfer: Understanding the Main Ideas

Identify the forms of heat transfer that take place in each illustration. Some illustrations may show more than one form of heat transfer.

1. _____

2. _____

Name _____

1. Heat is always transferred _____.

a) from a warmer substance to a cooler one

b) from a cooler substance to a warmer one

2. There are three ways that heat can be transferred from one substance to another. They are:

a. _____

b. _____

c. _____

3. Suppose you want to melt a block of ice. To do it, you need to transfer heat to the ice somehow. You could use any of the three ways mentioned in question 2. Figures 1, 2, and 3 show three possibilities.

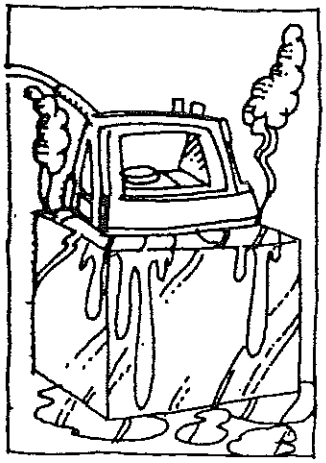

Figure 1

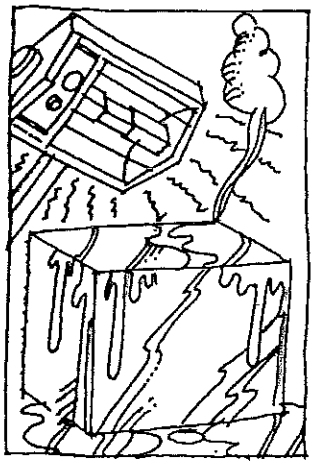

Figure 2

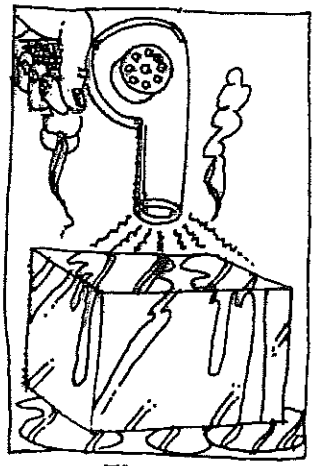

Figure 3

a. You could place a warm iron directly on the ice. This is an example of heat transfer by

_____

b. You could shine a heat lamp on the block of ice. This is an example of heat transfer by

_____

c. You could use a hair dryer to blow hot air over the ice. This is an example of heat transfer by

_____