Quiz POD: Thermal Contact 2 Name _____

1. [5 points]
For some reason, a fish gets caught on land!
The fish has a temperature of 45°F.
The air outside has a temperature of 65°F.

Explain how heat energy will flow. Explain why:

Explain what will happen to the temperature of the fish. Explain why:

When will heat energy stop flowing?

What will be the final temperature of the fish? Why?

2. [5 points]
A lobster has been chilling in a hot tub and has a temperature of 65 degrees Celsius. Someone rudely pick sit up and throws it into a pool with a temperature of 15 degrees Celsius. The pool is very large and the lobster is small by comparison.

Explain how heat energy will flow. Explain why:

Explain what will happen to the temperature of the lobster. Explain why:

When will heat energy stop flowing?

What will be the final temperature of the lobster? Why?

Quiz POD: Thermal Contact 2 Name _____

3. [2 points]
A loaf of bread with a temperature of 22 degrees Celsius is in a room with a temperature of 22 degrees Celsius.

Explain what happens to heat energy, and why:

For each of the following situations (4 – 7), *estimate* the final temperature once thermal equilibrium is reached. EXPLAIN YOUR REASONING FOR EACH ONE!
[2 points each]

4. Cookies with an initial temperature of 120 degrees Fahrenheit are placed in a room with an air temperature of 60 degrees Fahrenheit.

5. A small box of Eggo waffles with a temperature of 65 degrees Fahrenheit is placed in a freezer with a temperature of 2 degrees Fahrenheit.

6. Two potions are mixed. The red potion has a temperature of 50 degrees Celsius and the blue potion has a temperature of 10 degrees Celsius. They potions have approximately the same mass and specific heat.

7.
Rocks in water:

Assume that these rocks have an initial temperature of 30 degrees Celsius and the water has an initial temperature of 10 degrees Celsius