

NAME _____

Radiation HW

1. In class we witnessed a radiometer spun in a very specific way. The radiometer consisted of thin pieces of metal that were painted dark on one side and light on the other. When a lamp was put near it, the radiometer moved as if the dark side was being hit harder than the light side. Explain.

2. If you have access to aluminum foil in your cold weather tent, if you were to open it up and unroll it into long sheets, where would you place it and why?

3. Picture this: you're alone in the desert. During the day it gets very hot. During the night it gets very cold. Just before sunset you make a small rock wall in the shape of a circle to sleep in. Why?

- a. So predators don't see you
- b. You like to play fort
- c. You are a rock collector and like to be surrounded by your prized possessions
- d. The rocks will re-radiate thermal energy to you for a long time into the night

4. You have to be mindful of radiation during your simulated cold-weather survival scenario because...

- a. All radiation is dangerous
- b. Radiation can travel through empty space
- c. Thermal radiation will travel from the cold ground to you
- d. Thermal radiation will travel from you to the surroundings

5. Matching!

Dark surfaces
Light surfaces

Great absorbers of radiation
Great reflectors of radiation
Great emitters of radiation