

ESR 320

PROBLEM SET 5



⇒ Suppose the earth is really flat (Figure 1). Imagine an earth that is shaped like a penny, with one side that faces the sun at all times. Also suppose that this flat earth is the same temperature everywhere (including the side that faces away from the sun). Neglect any radiation losses off of the rim of the earth and assume there is no albedo or greenhouse effect. Treating it as a perfect blackbody, estimate the temperature of this new, flat earth.

Fig. 1

