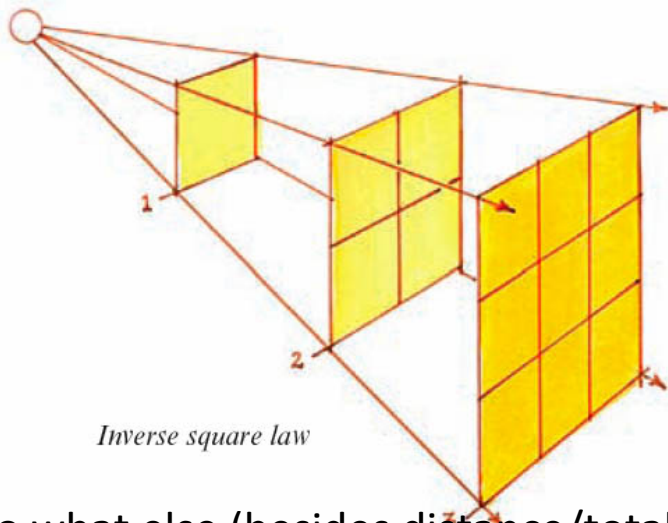


# The Venus-Mercury paradox

- Temperature on day side of Mercury = 420 C
- Temperature on Venus = 460 C
- But Venus is 2x farther away than Mercury!
- How much less light does it receive from the sun?



Hint: Imagine light spreading out as it moves away from its source like the picture at left. Every square is the same amount of area. The second surface is twice as far away as the first, and the third is three times farther away than the first, yet all three surfaces intercept the same amount of total light from the source.

So what else (besides distance/total light intercepted) could cause the temperature to be so high?