

If you poke a small hole in a piece of cardboard and hold it in bright sunlight, you'll cast a "pinhole-image" of the Sun on the ground below. Carefully measure the distance between the cardboard and the solar image and you'll find it's about 108 times greater than the diameter of the solar image. What does this tell you about the diameter of the Sun, compared with its average 150,000,000-km distance from Earth?

Aha ... when the cardboard is held 108 cm above the ground, the solar image has a diameter of 1 cm!

