

Aristarchus calculation of the "size" of the sun

Post by "Eikadistes" of April 21, 2026 at 11:31 AM

Question for math friends:

1. *Given any, one planet in the observable universe*, what are the chances that this planet has both (1) exactly one moon, which is also (2) the exact same *apparent* size as that planet's parent star?

Another question along those lines:

2. *Under what conditions* could ancient humans have measured the sun *without* the moon?

I'm ultimately getting to this thought experiment:

3. *If you're a humanoid alien* on an Andromedan planet with no moon, once a sage from your species apprehends the relationships between local triangles, what observations need to be made (or what technologies need to be invented) to allow the them to make accurate, celestial measurements?