

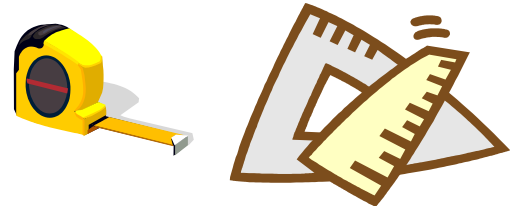
Who measured the Earth

Ans: Eratosthenes in about 235BC.

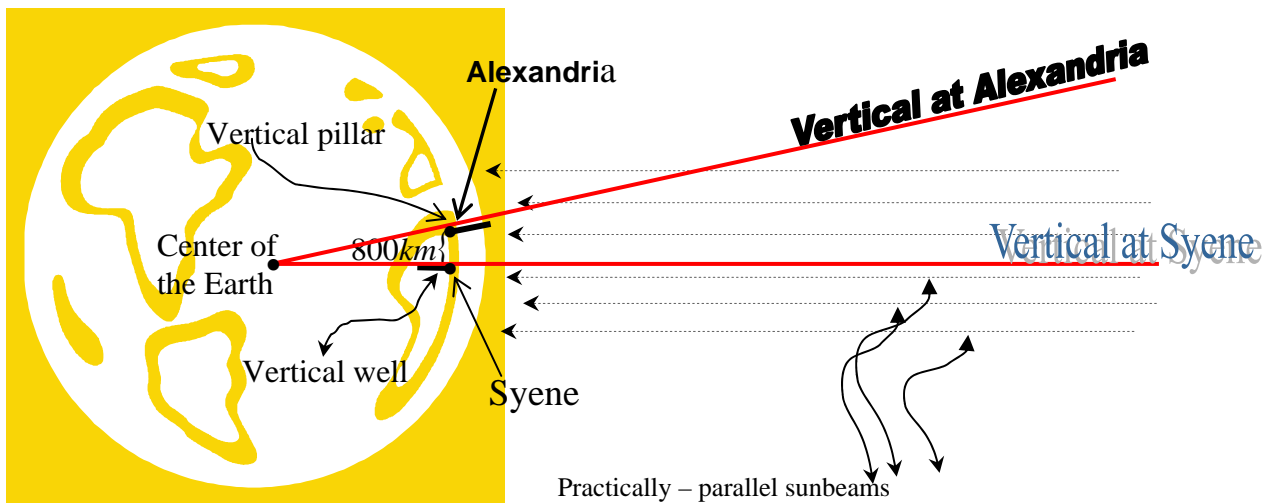


What tools did he use?

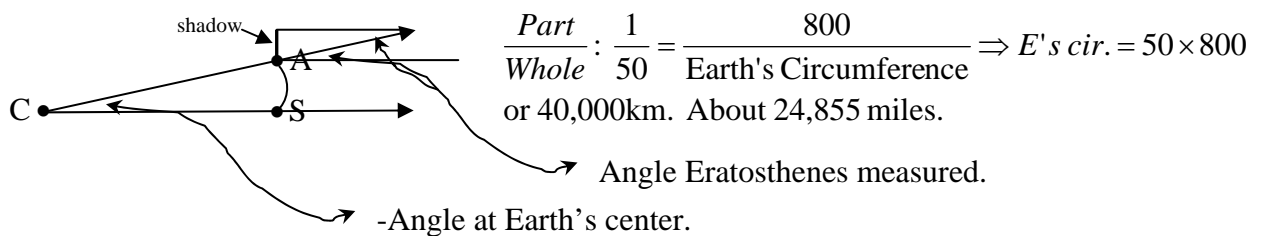
Ans: **Mathematics**



How did he do it?



When the sun is directly overhead at Syene, it is not directly overhead in Alexandria, 800 km north. When the sun's rays shine directly down a vertical well in Syene, they cast a shadow of a vertical pillar in Alexandria. The verticals at both locations extend to the center of the Earth, and make the same angle that the sun's rays make with the pillar at Alexandria. Eratosthenes measured this angle to be 1/50th of a complete circle.



How about the Earth's radius? What about the moon? Stay tuned!