

Astronomy Assessment
Lesson: Measuring Earth

Name: _____
Due Date: _____

(1) Given that Eratosthenes calculated that the distance from Alexandria to Syene was $\frac{1}{50}$ th the circumference of Earth and that the distance from Alexandria to Syene was 500 stadia, what is the circumference of Earth in stadia? In miles?

Show work here:

Circumference in stadia: _____

Circumference in miles: _____

(2) How far off was Eratosthenes' calculation in percent? (Please show your work)

(3) What are possible sources of error in his calculations? In other words, what factors contributed to Eratosthenes' inaccuracy?
