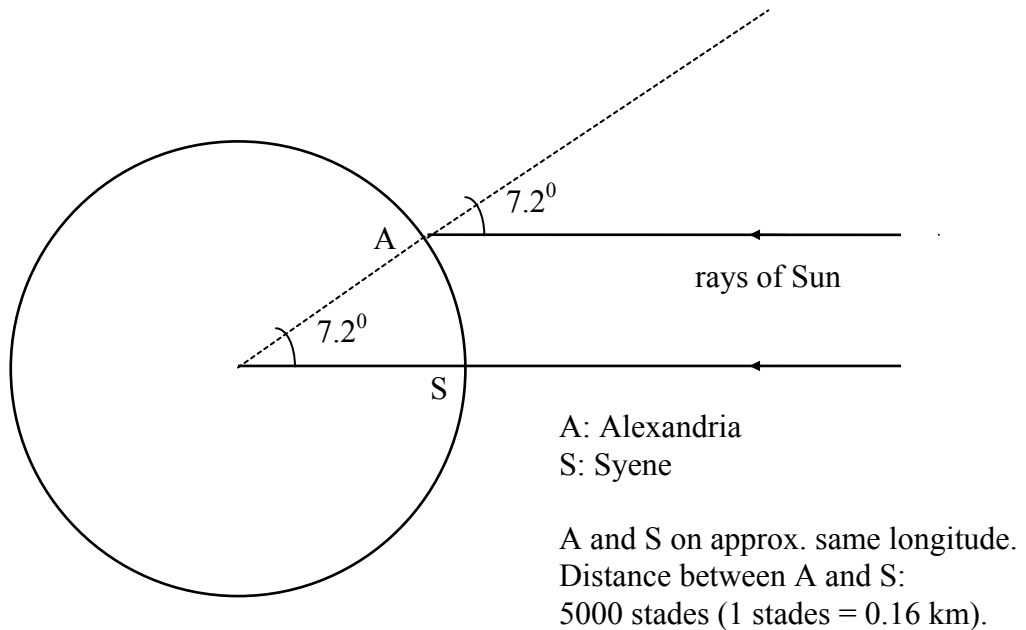


How Eratosthenes (approx. 300 b.c.) measured the circumference of the Earth



Syene: At midsummer noon the Sun is right above the head; its rays penetrate down into a deep well.

Alexandria: At midsummer noon the rays of the Sun makes an angel of 7.2° with the vertical.

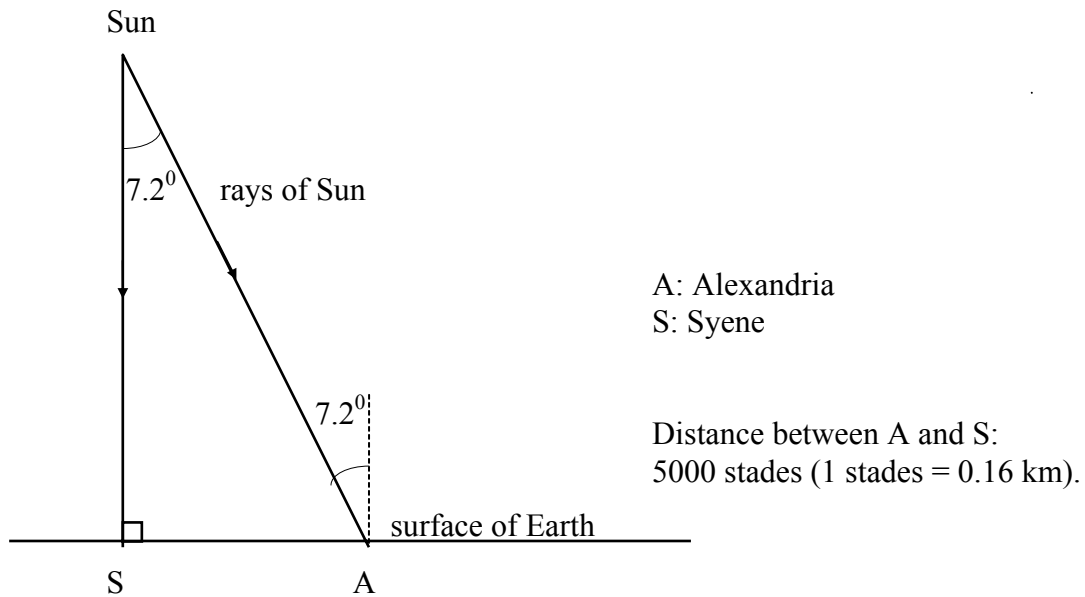
1. Calculate the circumference of the Earth.

2. Which assumption did you make

concerning the Earth?

concerning the Sun?

How Eratosthenes (approx. 300 b.c.) measured the distance to the Sun



Syene: At midsummer noon the Sun is right above the head; its rays penetrate down into a deep well.

Alexandria: At midsummer noon the rays of the Sun makes an angel of 7.2° with the vertical.

1. Calculate the distance to the Sun.

2. Which assumption did you make

concerning the Earth?

concerning the Sun?