

## Calculating the Speed of Light

- Until the 17<sup>th</sup> century, light was thought to travel at infinite speed and be transferred instantaneously.
- Olaus Roemer first successfully measured the speed of light in 1676.
  - Jupiter's Galilean moons sometimes orbited in front of Jupiter up to 1000 seconds after expected...

$$D = 3.0 \times 10^{11} \text{ m}$$

$$v = \frac{d}{t} = \frac{3.0 \times 10^{11} \text{ m}}{1000 \text{ s}}$$

$$v = 3.0 \times 10^8 \text{ m/s}$$

