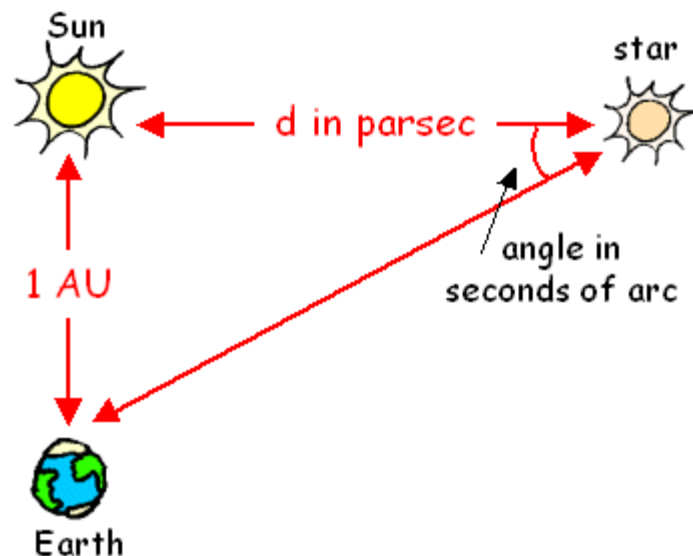


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PARSEC

Distances to the closest **stars** can be determined through measurement of their **trigonometric parallax**. The **parsec** was defined to be the **distance** at which 1 **AU** (perpendicular to the line of sight) subtends an **angle** of 1 **arcsecond**:

$$1 \text{ parsec (pc)} = \text{distance } d \text{ when angle is } 1 \text{ arcsecond} = 3.086 \times 10^{13} \text{ km} = 3.26 \text{ ly}$$



Using the Earth's **orbit** as a **baseline**, the distance (in parsecs) to a **star** can be calculated using:

$$d = 1/p$$

where p is measured in **arcseconds**.

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