

Name: _____

Date: _____

Division: _____

Distances

Video Questions

1. By knowing the _____ between two cities and the _____ of the Sun shining down a well, and by applying _____, Eritosthenes was able to calculate the circumference of the Earth to be about _____ kilometers. For the first time, _____ had determined a _____ to the Universe.
2. Aristarchus of Samos' numbers weren't very accurate, but using his methods _____ and _____ calculated the distances between the Earth, the _____ and the _____, and also their _____. This was over _____ years before the invention of the _____.
3. In the 17th Century, _____ and _____ laid the mathematical groundwork for understanding _____.
4. The distance from the Earth to the Sun is the _____, or _____.
5. Astronomers used the transits of _____ and _____ to measure the distance from the Earth to the Sun more accurately, but because of blur from the _____ the numbers were still not very accurate. It wasn't until the 1960s that _____ bounced off of _____ allowed astronomers to precisely determine the value of the AU to be _____ kilometers.
6. Combining the images from our two eyes gives us what is called _____.
7. The apparent shift in position of a nearby object compared to more distant objects is called _____.
8. The first successful parallax measurement was in _____ with a star called _____ Cygni. It turned out to be _____ AUs away.
9. Finding the AU to be too small, astronomers developed the _____ to measure astronomical distances. It is equal to the distance that _____ travels in one _____. 61 Cygni, then, was a more palatable _____ light years away.
10. An even larger unit, the parsec (short for **parallax sector**) is equal to _____ light years.
11. The nearest star to us is _____ which is about _____ light years away.
12. By using spectroscopy to identify similar stars, we can compare their _____, which allows us to tell their _____.