

## Astronomy Ranking Task: Parallax

### Exercise #1

**Description:** The table below shows distances for six fictitious stars, lettered A through F.

Star	Distance (pc)
A	1.38
B	$9.20 \times 10^{-6}$
C	0.00422
D	132
E	237
F	$4.84 \times 10^5$

**A. Ranking instructions:** Rank the distances of the stars.

Ranking Order: Greatest 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ Least

Or, the distance to each star is the same. \_\_\_\_\_ (indicate with a check mark)

**Carefully explain** your reasoning for ranking this way:

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**B. Ranking instructions:** Rank the sizes of the parallax angles of the stars.

Ranking Order: Smallest 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ Largest

Or, the parallax angles of the stars are all the same. \_\_\_\_\_ (indicate with a check mark)

Or, there is not enough information to determine the stars' parallaxes. \_\_\_\_\_ (indicate with a check mark)

**Carefully explain** your reasoning for ranking this way:

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**C. Ranking instructions:** Rank how bright the stars appear.

Ranking Order: Brightest 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ Faintest

Or, the stars all appear the same brightness. \_\_\_\_\_ (indicate with a check mark)

Or, there is not enough information to determine the brightness. \_\_\_\_\_ (indicate with a check mark)

**Carefully explain** your reasoning for ranking this way:

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**D. Ranking instructions:** Rank how much the stars appear to shift on the sky.

Ranking Order: Least 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ Most

Or, the stars each appear to shift by the same amount. \_\_\_\_\_ (indicate with a check mark)

Or, there is not enough information to determine the apparent shifts of the stars. \_\_\_\_\_ (indicate with a check mark)

**Carefully explain** your reasoning for ranking this way:

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