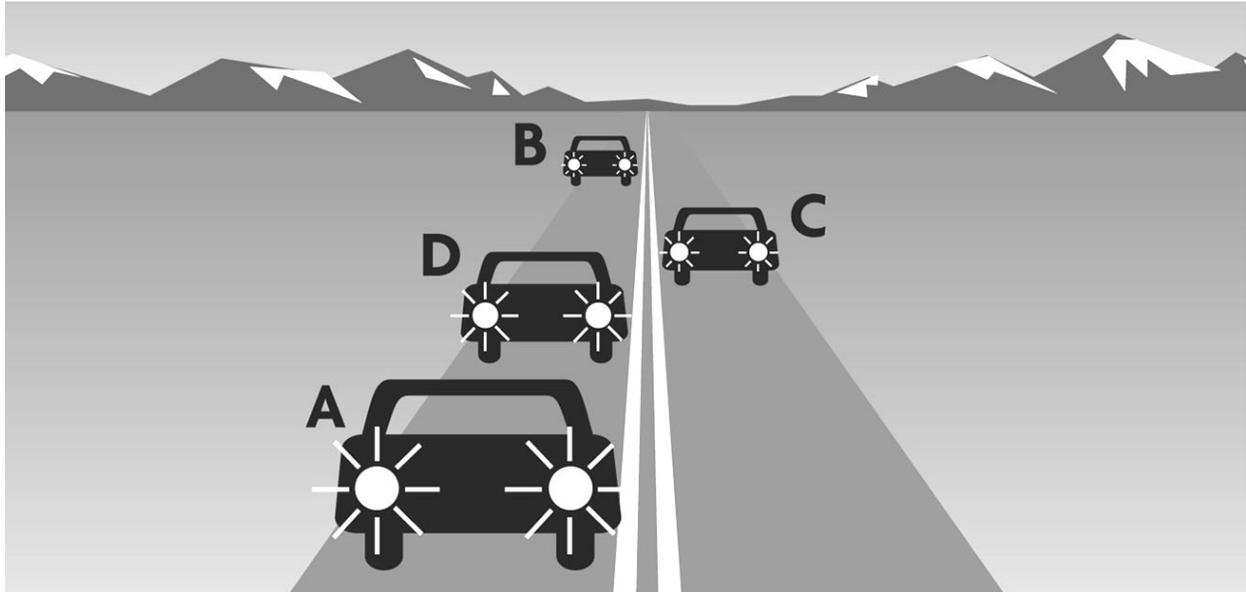


Astronomy Ranking Task: Apparent and Absolute Magnitude

Exercise #1

Description: The figure below shows four identical cars (A - D) driving toward you at sunset with their headlights turned on. Each car is equipped with identical headlights.



A. Ranking Instructions: Rank the distance (from greatest to least) that each car is from you.

Ranking Order: Greatest 1 _____ 2 _____ 3 _____ 4 _____ Least

Or, the distance to each car is the same. _____ (indicate with check mark).

Carefully explain your reasoning for ranking this way:

B. Ranking Instructions: Rank the apparent brightness (from greatest to least) of each car's headlights.

Ranking Order: Greatest 1 _____ 2 _____ 3 _____ 4 _____ Least

Or, the apparent brightness of each car's headlights is the same. _____ (indicate with check mark).

Carefully explain your reasoning for ranking this way:

C. Ranking Instructions: Rank the actual (intrinsic) brightness (from greatest to least) of each car's headlights.

Ranking Order: Greatest 1 _____ 2 _____ 3 _____ 4 _____ Least

Or, the actual brightness of each car's headlights is the same. _____ (indicate with check mark).

Carefully explain your reasoning for ranking this way:
