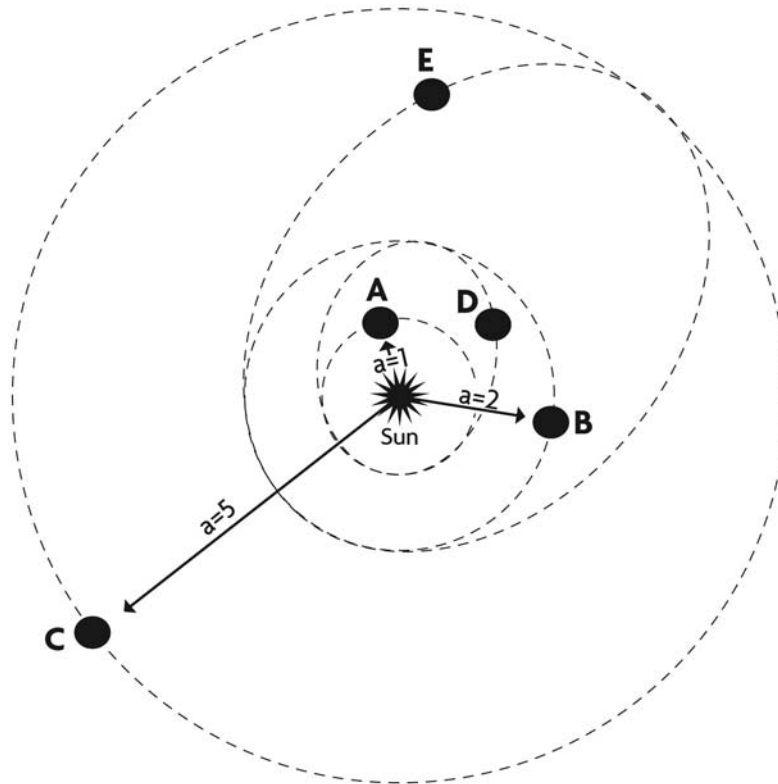


Astronomy Ranking Task: Kepler's Laws - Orbital Motion

Exercise #3

Description: The figure below shows a star and five orbiting planets (A – E). Note that planets A, B and C are in perfectly circular orbits. In contrast, planets D and E have more elliptical orbits. Note that the closest and farthest distances for the elliptical orbits of planets D and E happen to match the orbital distances of planets A, B, and C as shown in the figure.



Ranking Instructions: Rank the orbital period (from longest to shortest) of the planets.

Ranking Order: Longest 1 ____ 2 ____ 3 ____ 4 ____ 5 ____ Shortest

Or, the orbital periods of the planets would all be the same. _____ (indicate with check mark).

Carefully explain your reasoning for ranking this way:
