Astronomy Ranking Task: Phases of the Moon

Exercise #1

Description: The figure below shows a “top view” of the Sun, Earth, and five different positions (A - E) of the Moon during one orbit around Earth. Note that the distances shown for the Sun to Earth and for Earth to the Moon are not drawn to scale.

Ranking Instructions: Rank (from greatest to least) the amount of the Moon’s entire surface that is illuminated by sunlight for the five positions (A-E) shown.

Ranking Order: Greatest 1 ____ 2 ____ 3 ____ 4 ____ 5 ____ Least

Or, the amount of the entire surface of the Moon illuminated by sunlight is the same at all the positions. ____ (indicate with check mark).

Carefully explain your reasoning for ranking this way:
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