

## In-class activity 5

### Assemble Your Group

1. Find your assigned group members, and sign in below.

Team member: \_\_\_\_\_

Team member: \_\_\_\_\_

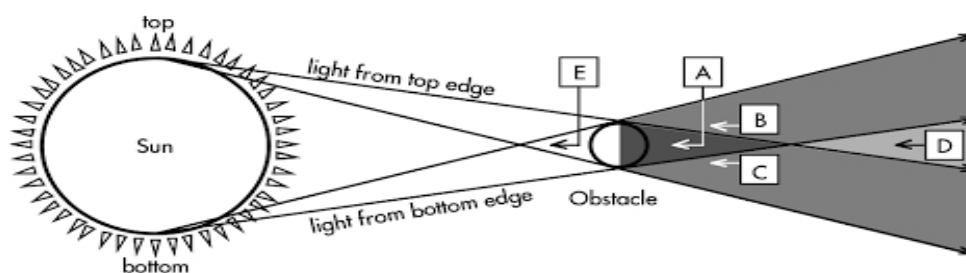
Team member: \_\_\_\_\_

Team member: \_\_\_\_\_

### Shadow Zones

2. Cf. Seeds and Backman, *ASTRO2*, Brooks/Cole Cengage Learning, 2014, p. 26, Fig. 2-9, and p. 29, Fig. 2-12. The diagram (not to scale) below shows the side view of the different shadow zones that are created by an obstacle that blocks light from the sun, and five different locations [A]-[E] in space to observe from. (This obstacle may either be Earth or the moon.)

Answer the following questions by circling your answers. For some questions you may circle more than one answer, or no answers.



- (a) *Umbra*. Location [A] receives light from the 

top edge
middle
bottom edge

 of the sun.
- (b) *Penumbra*. Location [B] receives light from the 

top edge
middle
bottom edge

 of the sun.