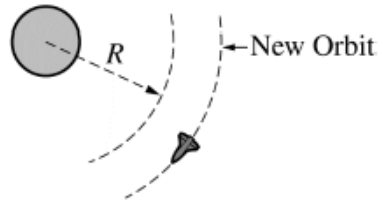




- (c) The first spacecraft is moved into a new circular orbit that has a radius greater than  $R$ , as shown in the figure below.



Note: Figure not drawn to scale.

Is the speed of the spacecraft in the new orbit greater than, less than, or equal to the original speed?

\_\_\_ Greater than    \_\_\_ Less than    \_\_\_ Equal to

Briefly explain your reasoning.