Physics 11

**Section 2.5: Kinematics Graphs**

**A First Lesson in Calculus**

There are important relationships between the three graphs we use in kinematics:

|  |  |  |
| --- | --- | --- |
| Position-TimeGraph | Velocity-TimeGraph | Acceleration-TimeGraph |

“Area under the graph” means the area between the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Example:** Complete the following sets of graphs.

 

**Example:** An object in motion has the following v-t graph. Calculate its displacement at 1s, 2s, and 3s.

**Example:** For the following v-t graph, calculate the total displacement and total distance.