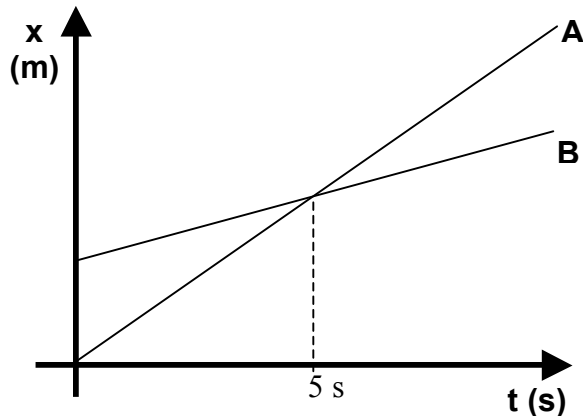


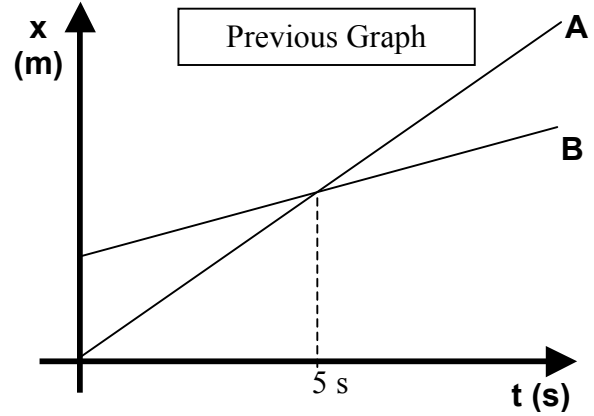
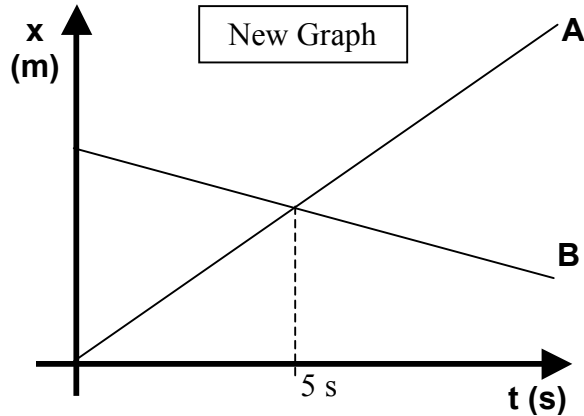
UNIT II Worksheet 1

1. Consider the position vs. time graph below for cyclists A and B.



- Do the cyclists start at the same point? How do you know? If not, which is ahead?
- At $t = 7\text{s}$, which cyclist is ahead? How do you know?
- Which cyclist is travelling faster at $t = 3\text{s}$? How do you know?
- Are their velocities equal at any time? How do you know?
- What is happening at the intersection of lines A and B?

2. Consider the new position vs. time graph below for cyclists A and B.



- How does the motion of the cyclist A in the new graph compare to that of A in the previous graph from page one?
- How does the motion of cyclist B in the new graph compare to that of B in the previous graph?
- Which cyclist has the greater speed? How do you know?
- Describe what is happening at the intersection of lines A and B.
- Which cyclist traveled a greater distance during the first 5 seconds? How do you know?