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## UNIT II Worksheet 1

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

a. Do the cyclists start at the same point? How do you know? If not, which is ahead?
b. At $t=7 \mathrm{~s}$, which cyclist is ahead? How do you know?
c. Which cyclist is travelling faster at $3 s$ ? How do you know?
d. Are their velocities equal at any time? How do you know?
e. What is happening at the intersection of lines $A$ and $B$ ?
2. Consider the position vs. time graph below for cyclists $A$ and $B$.

a. How does the motion of the cyclist $A$ in this graph compare to that of $A$ in the previous graph on page one?
b. How does the motion of cyclist $B$ in this graph compare to that of $B$ in the previous graph on page one?
c. Which cyclist has the greater speed? How do you know?
d. Describe what is happening at the intersection of lines $A$ and $B$.
e. Which cyclist has travelled further during the first 5 seconds? How do you know?
