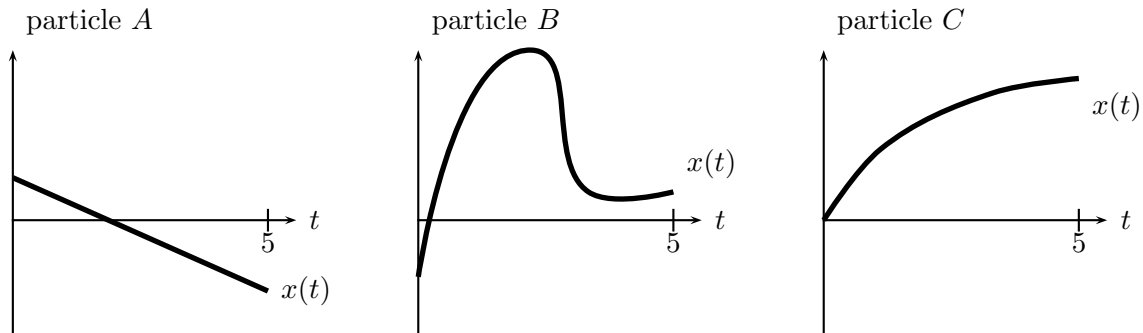


6. [14 points]

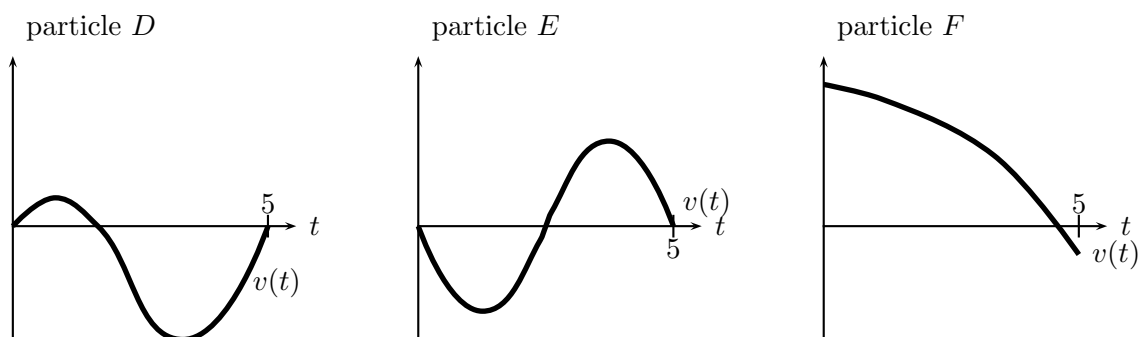
Each graph below shows the *position* of a particle moving along the  $x$ -axis as a function of time, for  $0 \leq t \leq 5$ . The vertical scales are all the same. Using the position graphs, answer the questions below. No work is required.



Which one of the three particles ( $A, B, C$ )...

- [2 points] has the greatest initial velocity?     B
- [2 points] has zero acceleration?     A
- [2 points] has the greatest average velocity?     C
- [2 points] travels the greatest distance?     B

Each graph below shows the *velocity* of a particle moving along the  $x$ -axis as a function of time, for  $0 \leq t \leq 5$ . Positive velocity indicates that the particle is traveling to the right. Negative velocity indicates travel to the left. The vertical scales are all the same. These are not the same particles as above. Using the velocity graphs, answer the questions below. No work is required.



Which one of the three particles ( $D, E, F$ )...

- [2 points] returns to its starting position when  $t = 5$ ?     E
- [2 points] has the greatest average velocity?     F
- [2 points] ends up farthest to the left of where it started?     D