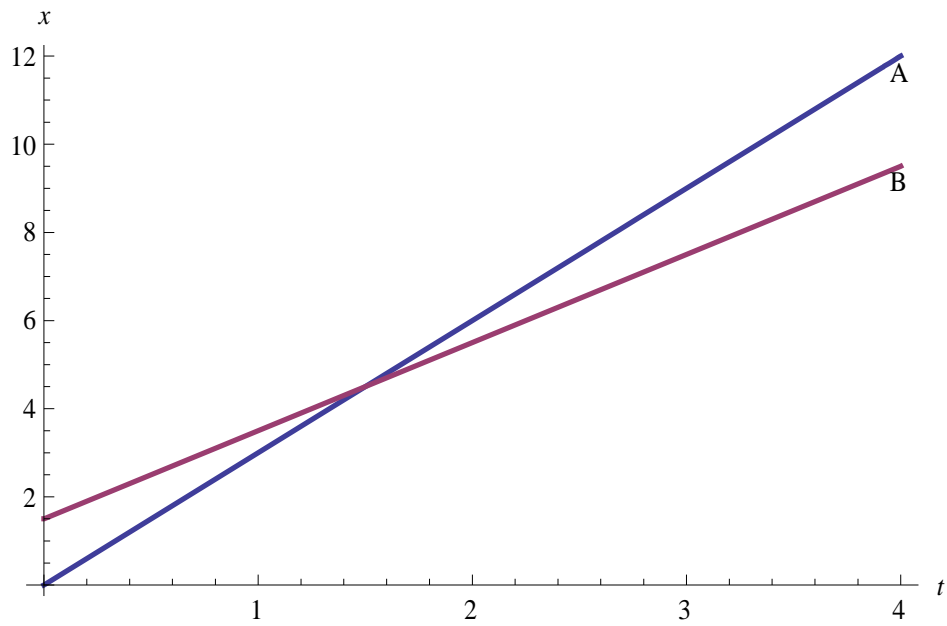


1D-kinematics examples

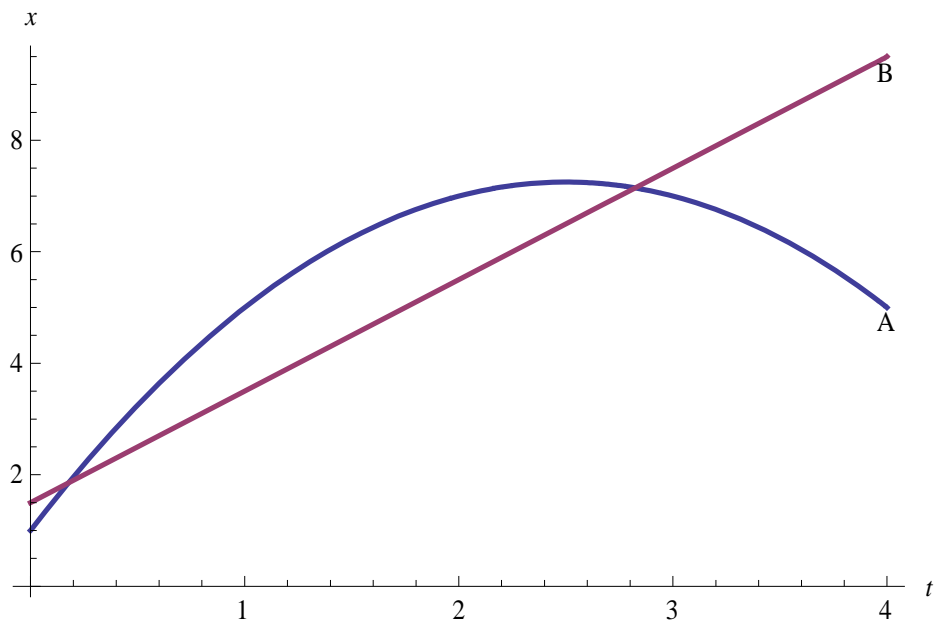
Example 1

Consider the following position x versus time t graphs for two objects A and B. Do A and B ever have the same speed? If so, where and when

a)

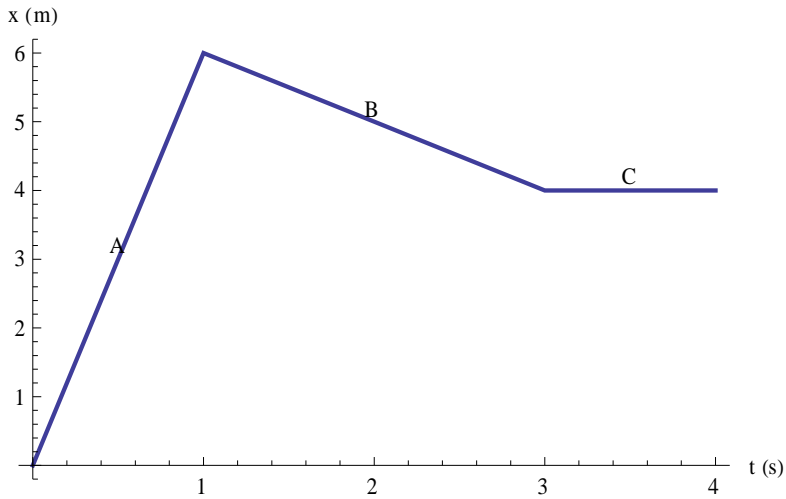


b)



Example 2

Rank the speeds at A, B and C from fastest to slowest

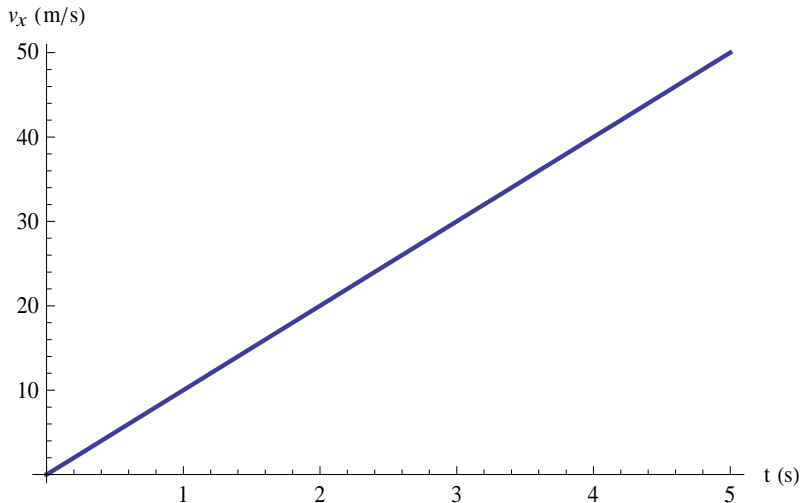


Example 3

A train is moving at a steady speed of 30 m/s. Initially $x = 0$ m at $t = 0$ s. Graph $x(t)$ and $v(t)$. How are the two graphs related?

Example 4

Consider the following $v_x(t)$ graph. Find x at $t=1$ s, 2s, 3s, 4s, 5s. Don't use any equation. Just use the graph.



Example 4

Irene starts driving 120 miles west of Denver going east. She drives for 4 hours at a speed of 40 mph. Plot $x(t)$. Choose west as the positive direction, and set $x = 0$ at Denver.