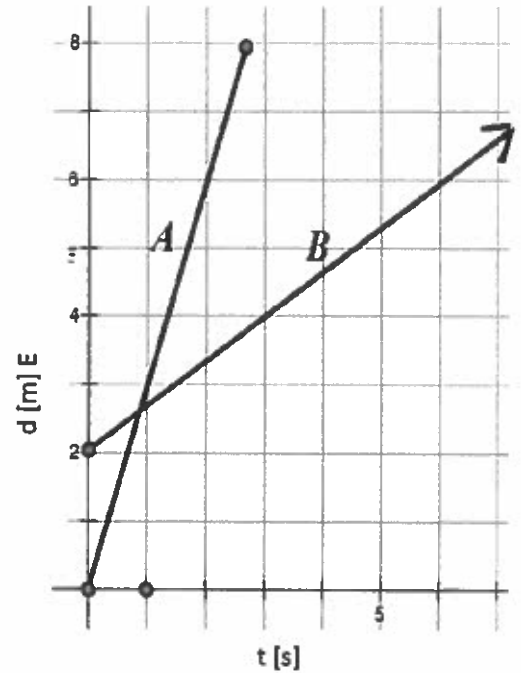


Investigating Position-Time Graphs

Clearly indicate whether the following statements are true or false:

1. _____ Object A moves faster than object B.
2. _____ Object B moves in uniform motion.
3. _____ Object A has the same initial position as object B.
4. _____ Object B covers the same distance in 6 seconds as object A covers in 2 seconds.
5. _____ The point of intersection of the two graphs represents the only moment in time when both objects move with the same velocity.
6. _____ Object A eventually comes to rest while object B continues moving eastwards.
7. _____ Object A moves with the speed of 12m/s.
8. _____ Object B moves with the speed of 0.5m/s.
9. _____ Both object move at the same direction for the entire time shown on the graph.
10. _____ The position of object B 6 seconds after it started moving is the same as the position of object A after 2 seconds of its motions.

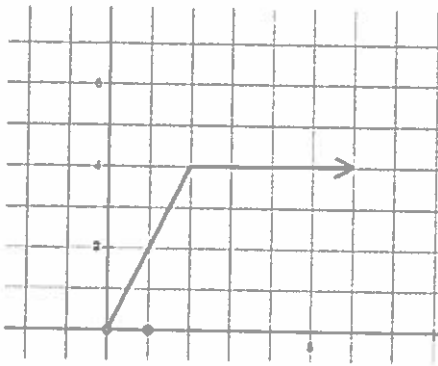


A) Label all the axes appropriately: time is given in seconds, displacement in meters and westward direction is considered positive.

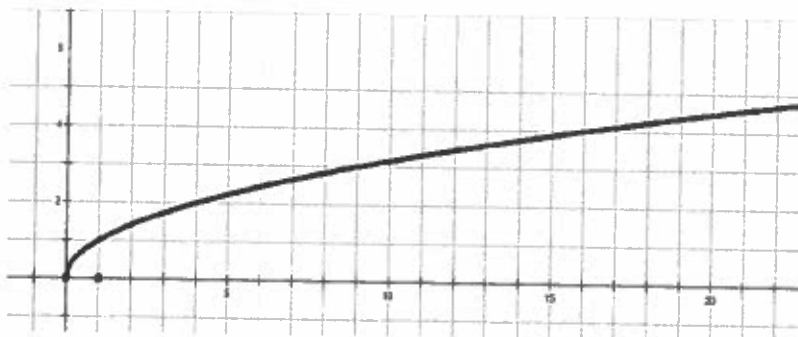
B) Describe the motion of each object with as much detail as you can.

- When possible, indicate whether the object moves with uniform or non-uniform motion, initial position and initial time, velocity, direction, distance covered, final position, displacement,...
- Is the object ever at rest? If yes, when exactly? How do you know? If not, how can you tell?
- What is the object's average velocity over the time interval (0,5)s? **Graph 1 only.**
- What is the object's instantaneous velocity at 3 s? **Graph 1 only.**

1.



2.



3.

