Graphing Motion

1. Draw a position time graph for the following scenarios
   a) A car travelling forward at constant velocity
   b) A rock dropping from a cliff
   c) A car moving backwards at constant velocity

2. Draw a velocity time graph for each of the scenarios in q1

3. Refer to the graph on the right

a) When is the object moving the fastest?

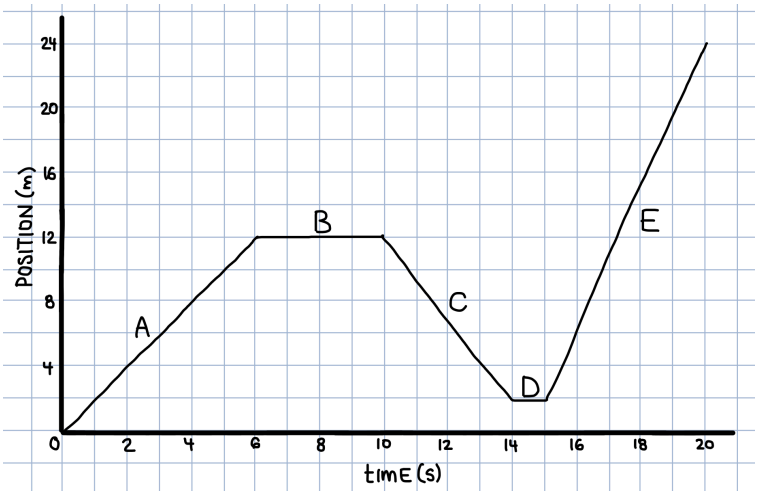
b) When is it moving forward?

c) When is it moving backwards?

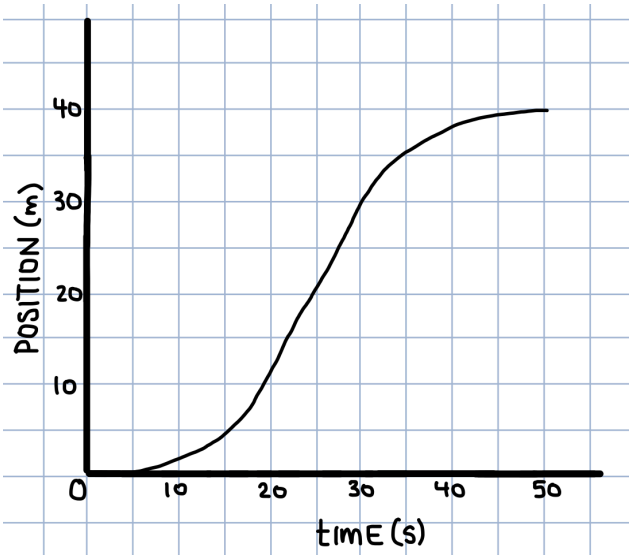
d) When is it not moving?

e) What is the distance travelled for the trip?

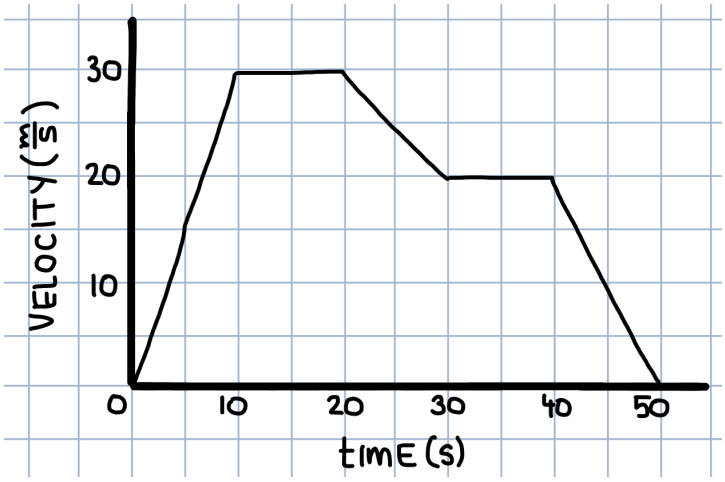
f) What is the average velocity for the trip?



4. Refer to the graph on the right
   a) When is the object speeding up?
   b) When is the object slowing down?
   c) When is the object moving forward?
   d) When is the object moving backwards?
   e) What is the average velocity of the trip?



5. Refer to the graph on the right



a) What is the highest velocity?
b) When does this happen?
c) What is the lowest velocity?
d) When does this happen?
e) When is the object moving forward?
f) When is the object moving backwards?
g) When is the object speeding up?
h) When is the object slowing down?
i) When is the acceleration 0?

6.

a) Describe qualitatively what is happening to the object below