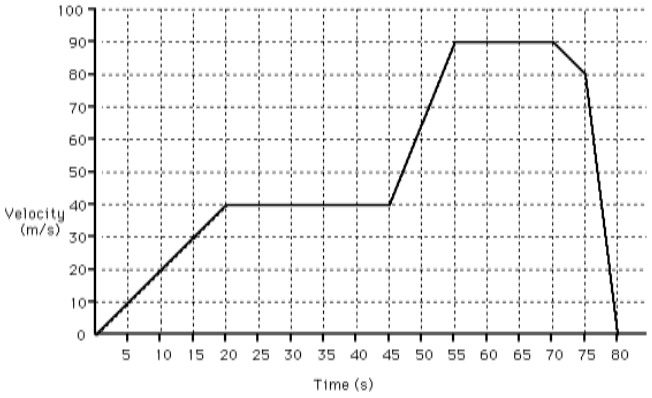
velocity vs. time



Questions:

1) During what time interval(s) is the object's acceleration the greatest?

2) At what time does the object have the greatest displacement?

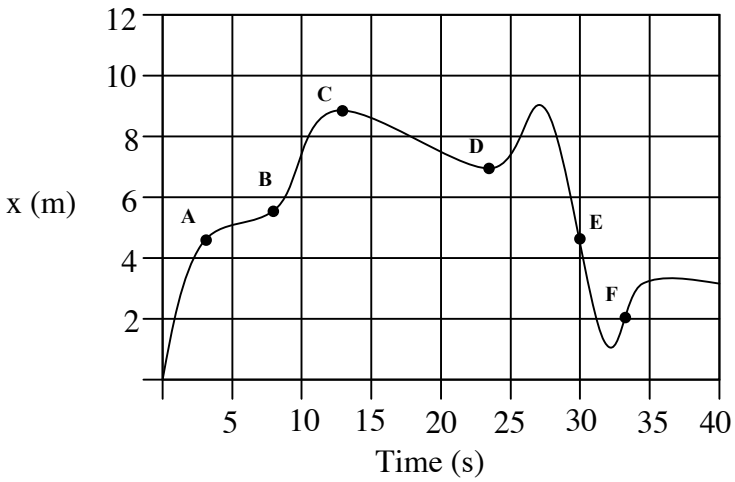
3) During what time interval(s) is the object's acceleration negative?

4) During what time interval(s) is the object's velocity negative?

5) Fill in the table below:

Δt (s)	a ($\frac{m}{s^2}$)	Δx (m)
0 - 20		
20 - 45		
45 - 55		
55 - 70		
70 - 75		
75 - 80		

Position vs. time



1) At which points is the velocity positive?

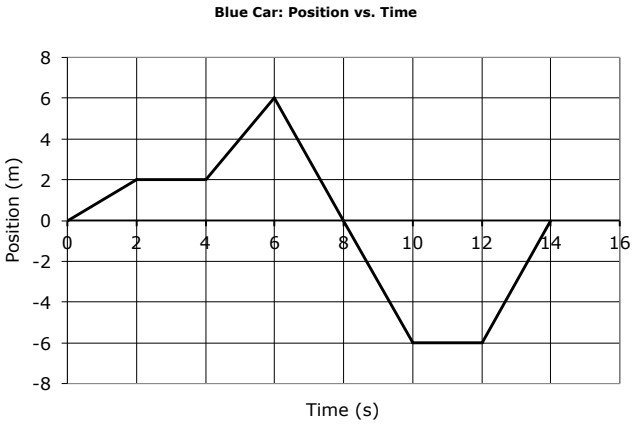
2) At which points is the velocity negative?

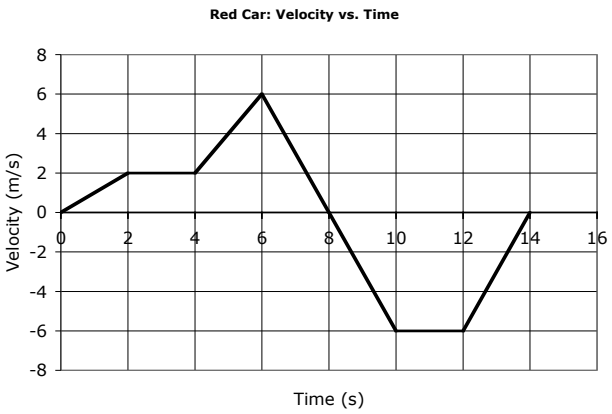
3) At which points is the velocity about zero?

4) At which points is the acceleration positive?

5) At which points is the acceleration negative?

6) At which points is the acceleration about zero?





The two graphs above may look similar, but they actually represent two very different motion patterns. Calculate the answers to the following for both the Red car and the Blue car:

	BLUE CAR	RED CAR
velocity at t = 3 seconds		
average velocity from t = 0 s to t = 2 s		
velocity at t = 5 seconds		
average velocity from t = 6 s to t = 10 s		
maximum speed for the whole trip		
In which interval(s) was the car's velocity negative		
displacement during the first 2 seconds		
displacement during the first 4 seconds		
During which time interval(s) was the car's velocity zero		
During which intervals was the car's acceleration zero		