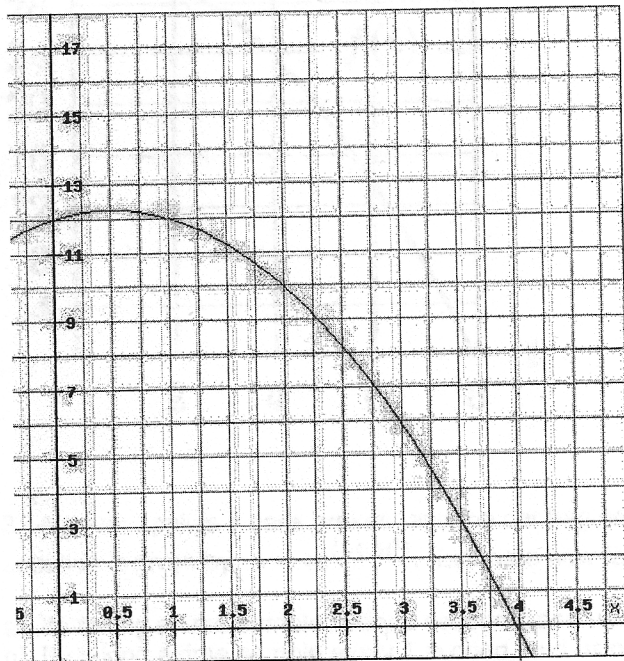
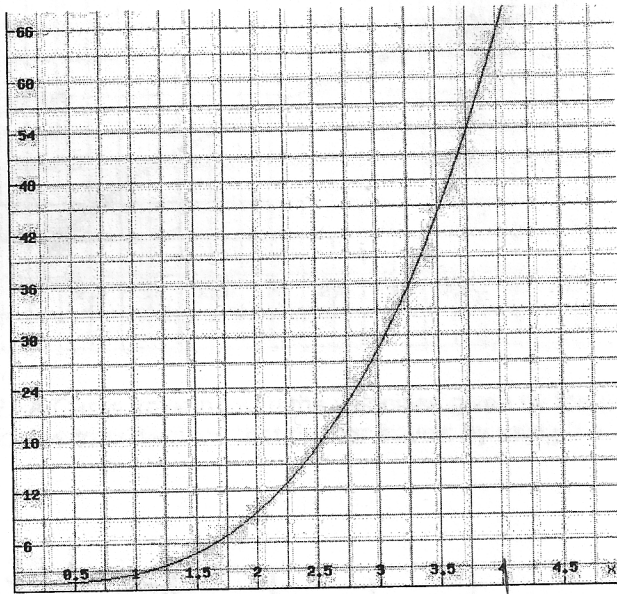
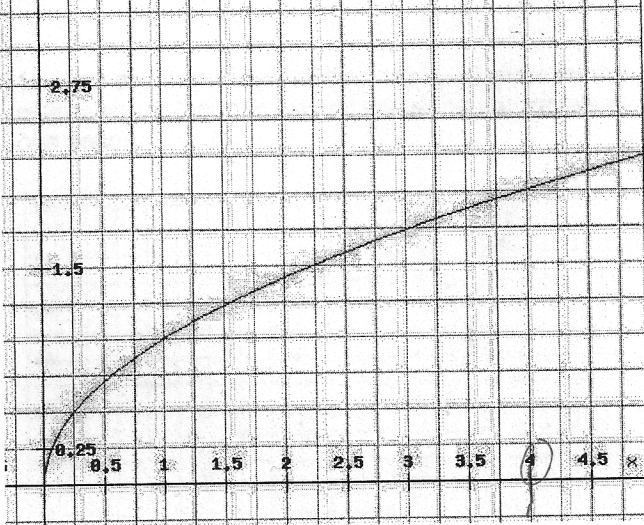


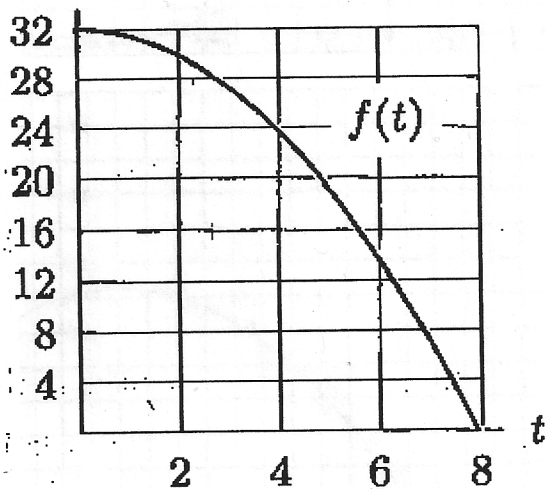
1. Cars are travelling with the velocities given by the graphs below. Give over- and under-estimates for the total distance that the car travels by time sampling every 2 seconds and every one second.

over u estimate





2. A Car is traveling with the velocities given by the graph below. Give over- and under- estimates for the total distance that the car travels by using 2 and 4 subintervals.



3. A driver applies a car's brakes, and the car begins to slow down. The car's speed at time t seconds is given by: $v = 4e^{(-0.5t^2)}$. Estimate how far the car travels in 4 seconds.

- By taking a time sample every 2 seconds, and using over- and under- estimates.
- By taking a time sample every 1 second, and using over- and under- estimates.