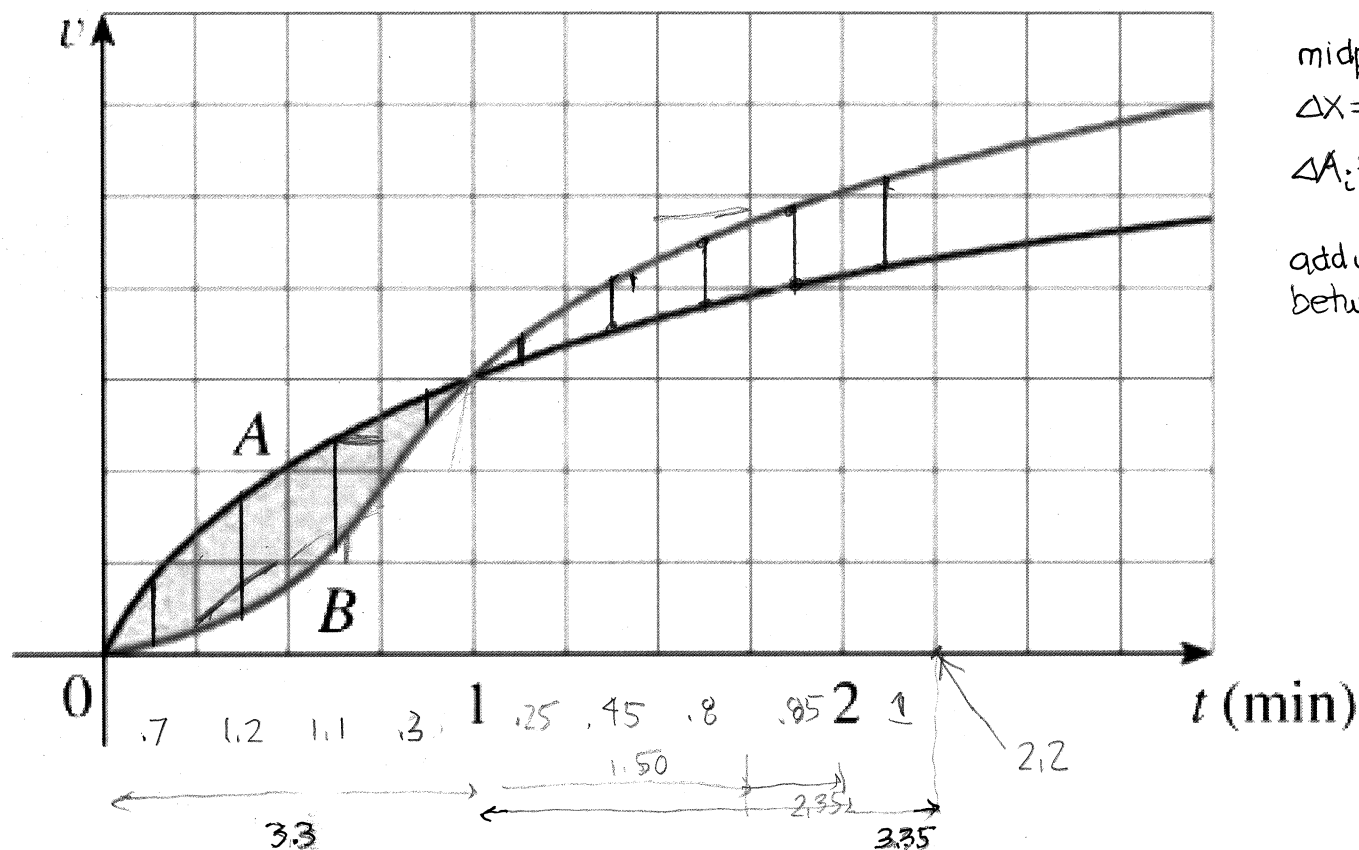


- 53.** Two cars, A and B, start side by side and accelerate from rest. The figure shows the graphs of their velocity functions.
- Which car is ahead after one minute? Explain.
 - What is the meaning of the area of the shaded region?
 - Which car is ahead after two minutes? Explain.
 - Estimate the time at which the cars are again side by side.



midpoint rule approximation
 $\Delta x = 1$ for each strip.
 $\Delta A_i \approx L_i$ midpoint
 cross-section length
 add up ΔA_i to get area
 between curves