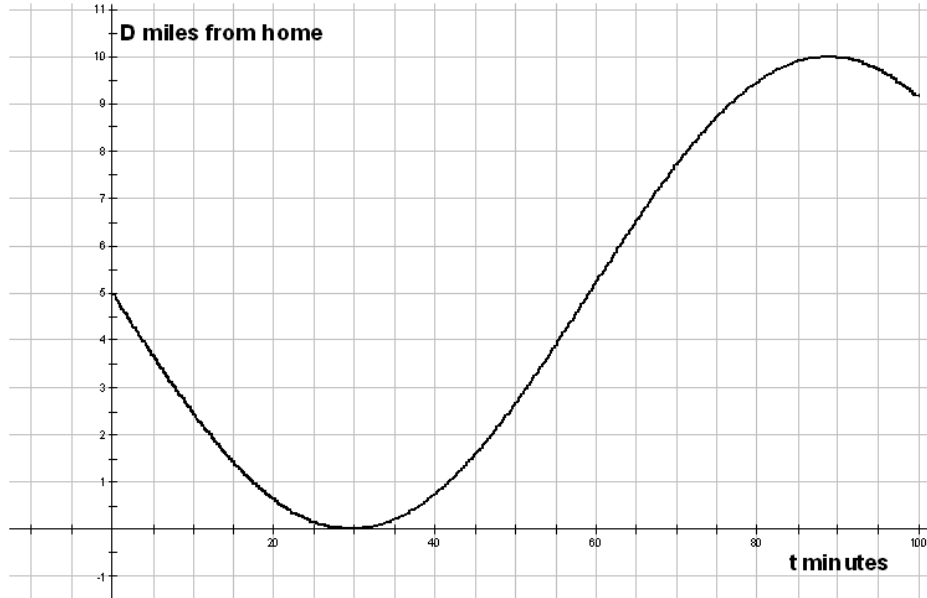


1. The following graph represents 100 minutes of Eugene's bike trip.



- Find Eugene's average speed over the interval between $t=0$ and $t = 20$. Sketch the corresponding secant line; label it a. What is the equation of this line?
- Estimate Eugene's instantaneous speed, in mph, at $t = 40$? Sketch the appropriate line relating to this concept on the graph; label it c. What is the equation of this line? Show all work.
- Find the two places where Eugene is going approximately 12 mph (instantaneous speed). Sketch the appropriate lines relating to this concept on the graph; label them d. What are the equations of these lines?
- When is Eugene going the fastest and towards his house? How do you know? Explain. Approximately how fast is he going?
- Describe Eugene's 100 minute bike ride.