Soy milk is leaking from an underground storage tank. The rate of leakage is shown on the graph on the other side of this page. COA’s reputation is at risk.

1. Come up with upper and lower estimates for the total amount of soy milk that has been released into the environment. Use a $\Delta t$ of 1 day.

2. What $\Delta t$ would you need so that the error in your estimate was no more than 1 gallon?
1. A cat is running. The speed of the cat as a function of time $t$ is given by the function $v(x) = 3t^2$. How far does the cat run from $t = 2$ to $t = 5$? Come up with estimates by evaluating left- and right-hand sums with $\Delta t = 1$. 

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