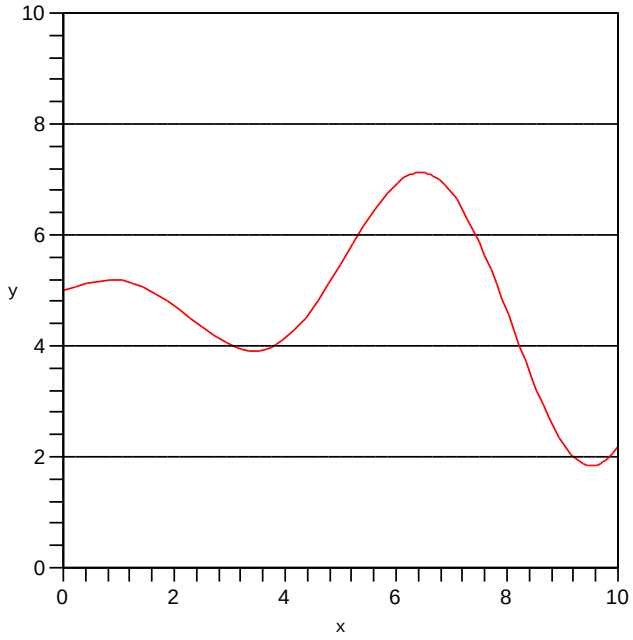
The graph gives the position $P(t)$ of a highway patrol car on the Mass Pike in miles east of Worcester, where t is minutes after 12:00 noon.

Let $V(t)$ be the car's velocity at time t.



1. Where is $V(t)$ positive? negative? zero?
2. When does the car change directions from driving east to west? from west to east?
3. Use this information to *sketch* a graph $V(t)$.
4. Where is the second derivative of P positive? negative? (Use your graph from 3).
5. Sketch a graph of P''.