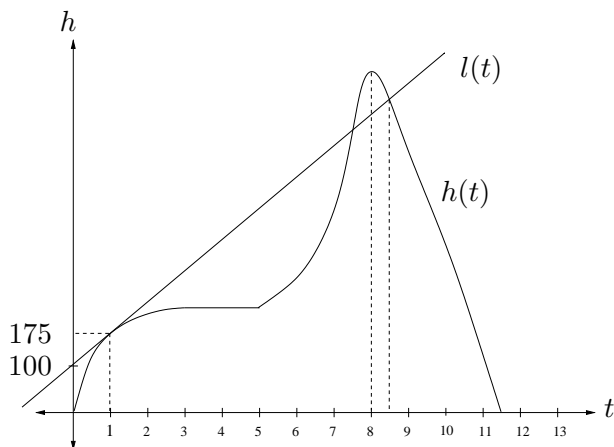


7. (12 points) The graph below gives a rock climber's height as a function of time as he climbs a small mountain. The height is measured in feet and the time is measured in hours. The line $l(t)$ gives the tangent line to $h(t)$ at time $t = 1$.



- (a) For which time(s), if any, is the climber stopped?
- (b) Does the climber speed up or slow down over the first three hours?
- (c) What is the climber's rate of ascent 1 hour into the climb?
- (d) What is the climber's height after 8.5 hours?
- (e) If the maximum height the climber reaches is 800 feet, what is his average rate of ascent over the last 3.5 hours of his trip (i.e., for $8 < t < 11.5$)?