MA131 Fall 2013 **Section 06** **Quiz 10**

Name:_____ **Student Number:_____**

1. Draw graphs of underestimate and overestimate for the following function, label the points.

a) $f(x) = x^2 - 5, x \in [0, 5]$

b) $f(x) = 20\sqrt{x}, x \in [0, 5]$

2. Calculate the following problem.

Oil leaked from a tank at a rate of r(t) liters per hour. The rate decreased as time passed, and values of the rate at two hour time intervals are shown in the table. Find lower and upper estimates for the total amount of oil that leaked out.

t(h)	0	2	4	6	8	10
r(t) (L/h)	8.7	7.6	6.8	6.4	5.6	5.3