

Name: \_\_\_\_\_

1. A forest fire covers 1000 acres at time  $t = 0$  and grows at  $20t + 10$  acres per hour. Write down a formula expressing the total acres covered when  $t = 24$ . (Do not evaluate the integral.)

2. The population of the world  $t$  years after the year 2000 is predicted to be  $6.1e^{0.0125t}$  billion. Write down an expression giving the average world population in the decade 2010–2020 in billions. (Do not evaluate the integral.)