Quiz

Name: _____

T	L
74.4	132.78
74.6	132.90
74.8	133.02
75.0	133.14
75.2	133.26
75.4	133.38
75.6	133.50

1. The length L of a bridge increases as the temperature T increases. The table gives the length of the bridge in feet in terms of the temperature in °F. Estimate L', the rate of change of L in with respect to$T$, at the time when $T = 75°$.

Answer: _____

2. The volume of a circlular cylinder of height 4 and radius 4 is $V = 4\pi r^2$.
a. Graph V as a function of r.

b. Estimate V', the rate of change of V with respect to r, at the point where $r = 2$.
Answer: _____

c. How close to the correct answer do you think your answer to part b is? Justify your claim.