Second midterm exam will be on Nov. 23.

1. Page 277, Problem 2 (a)

2. Suppose \( X \) is an exponential random variable with parameter \( \lambda \). Find \( E(e^X) \) and \( E(e^{2X}) \).

3. For any random variable \( X \) (suppose its variance is finite) show that

\[
V(cX) = c^2V(X)
\]

where \( c \) is a constant.