§4.5 379:5-22.
Write $N(t)$ in base e form. Then solve the problem.
Except for 2, give exact answers, not approximate decimal answers.

1(8). Initially, $2 \times 10^4$ bacteria are present in a colony.
Eight hours later there are $3 \times 10^4$. Hint, first find the growth equation, then the growth constant, then $N(t)$.

(a) What is the population two hours after the start? 
chk=11 or 12 or 16 or 17 fraction must be reduced.

(b) How long will it take for the population to triple? 
chk=16 Remember the units

3(6). The half-life of strontium-90 is 28 years. Initially a sample has 10 grams.

(a) How many grams will remain after 1 year? 
chk=14 or 15 Remember the units

(b) After 10 years? 
chk=14 fraction must be reduced.

4(9). The half-life of radium-226 is 1620 years. Initially the sample has 2 grams.

(a) How many grams will remain after 10 years? 
chk=14

(b) Find the time required for 80% of the 2-grams to decay? Hint, at this time only .4 grams are left. chk=18 No No decimals in the answer. Remember the units