

Modeling Situations
MATHguide

Name: _____
Period: _____

Congratulations! You're a financial officer for Karadimos Corp. Make my clients happy or you're fired.

- 1) Leonardo DiCaprio wanted to find a good investment and he had these two options. Determine which investment is the better investment.
 - a) Leo could invest \$23,000 at 2.75% compounded semi-annually for 10 years.
 - b) Leo could invest \$25,000 at 2.55% compounded quarterly for 8 years.

- 2) Lady Gaga wants to invest \$300,000 at 1.05% compounded monthly. She wants to know how long it will take for her money to reach \$400,000. She's on the phone; hurry!

- 3) The owner of Karadimos Corp (Mr. Karadimos) is placing \$1000 in an account at 5% interest compounded annually. When the money doubles, it is yours to keep as a bonus. How long do you have to wait?

Congratulations! You were hired as a science advisor for DimoScience. Our country is counting on you.

- 4) DimoScience was hired to make a population projection for Karadimos Corp. Go to... <http://www.mathguide.com/cgi-bin/quizmasters2/L2.cgi> to get the problem. Mr. Karadimos wants to determine if he should make plans to run advertisements for MATHguide in the community, but it's based on the population.

- 5) A train carrying a radioactive substance derailed, causing the radioactive substance to exit the protective shielding offered by the train. DimoScience was hired to determine how bad the situation is. Go to <http://www.mathguide.com/cgi-bin/quizmasters2/L3.cgi> to get the problem.

Congratulations on becoming a doctor of medicine! You now work for Kare-DimoScience Hospital. Its slogan is: "We have patients that have patience." Solve these problems that involve patients whom have bad infections.

- 6) Bernardo has an infection! Go to <http://www.mathguide.com/cgi-bin/quizmasters2/L4.cgi> to get the problem. Be quick or Bernardo's situation will deteriorate.

- 7) Diana has an infection! Go to <http://www.mathguide.com/cgi-bin/quizmasters2/L4.cgi> to get her situation. We need to know if her situation can be solved with simple antibiotics or a more intrusive inpatient treatment.