

Math 16A  
Kouba  
How to Approach Related Rates Problems

Here are steps which may help you be successful in mastering Related Rates Problems.

- 1.) Read the problem carefully. Read it several times.
- 2.) Draw a picture representing the problem.
- 3.) Label quantities in your picture with variables (if they are changing) and with constants (if they are not changing).
- 4.) Write down information which is given in the problem.
- 5.) Write down what is to be found.
- 6.) Begin with a main equation.
- 7.) Differentiate the main equation with respect to time  $t$ .
- 8.) Plug in given numbers.
- 9.) Solve for the unknown quantity.
- 10.) Don't forget to put units on your final answer.