

A Guide to Solving Related Rate Problems

- Draw a figure illustrating the problem. Denote by x , y , z , etc. the quantities which vary with the time.
- Obtain a relation between the variables involved which will hold true at any instant.
- Differentiate with respect to the time
- Make a list of the given and required quantities.
- Substitute the known quantities in the result found by differentiating, and solve for the unknown.

from *Elements of Differential and Integral Calculus*, Granville, Smith, and Longley