

## STRATEGY FOR SOLVING RELATED RATE PROBLEMS

1. **DIAGRAM** – Draw a diagram. Label all variables and constants.
2. **KEY** – Assign symbols to all quantities that are functions of time.
3. **GIVEN** – Write down numerical information that we know and the equation that relates the variables.
4. **FIND** – Write down what we are asked to find (usually a rate, expressed as a derivative)
5. **SOLVE** – Differentiate with respect to  $t$  and solve.