THE SOLUTION OF A PHYSICS PROBLEM IS AN ESSAY ABOUT THE UNIVERSE!

Read the entire problem several times to understand what is asked.

Write out the problem (a summary will do).

DRAW the physical situation (if applicable).

List known and unknown quantities ... know what you’re looking for.

A table might be the way to do this ... pay attention to the text’s examples.

Begin by writing down the general law to apply ... e.g. \( \Sigma F = ma \).

Write down each general law you use ... e.g. “by the chain rule, \( \frac{dy}{dt} = \frac{\partial y}{\partial x} \frac{\partial x}{\partial t} \).”

Solve algebraically (NO NUMBERS SUBSTITUTED!!) for unknown

The symbols carry more information than numbers, substitution of numbers hides the physical information as though you’ve painted over a sign.

Substitute numerical values and calculate as THE LAST STEP!