

# Problem solving strategy

- Use this approach to solve problems, in particular if at first you have no clue.

Step 1  
recognize

## Recognize the problem

What's going on?

Step 2  
describe

## Describe the problem in terms of the field

What does this have to do with...?

Step 3  
plan

## Plan a solution

How do I get out of this?

Step 4  
execute

## Execute the plan

Let's get an answer

Step 5  
evaluate

## Evaluate the solution

Can this be true?

- Draw a picture
- Phrase the question in your own words
- Relate the question to something you just learned
- Identify physics quantities, forces, fields, potentials,...
- Find a physics principle (symmetry, conservation, ...)
- Write down the equations
- Solve equations, starting with intermediate steps
- Check units, order-of-magnitude, insert into original question, ...