



MATH ACTIVITIES

Energy

CAREER CONNECTION

Do you like math and thinking about how to use energy more efficiently? You may enjoy a career as an electrical engineer, working on the energy grid. You will need to develop your math, science, problem solving, and communication skills.

How much money will your street spend on electricity in one year?

Fermi problems require you to make a quick estimate of a quantity that seems difficult or impossible to determine precisely. They were named after Enrico Fermi, the Italian physicist who used this problem solving method to predict how atoms would work long before scientists had the technology to actually see atoms. Fermi problems emphasize the **process** of solving problems over getting the exact answer.

STEPS IN SOLVING THESE PROBLEMS

1. What is the question asking you to do?
2. Make a wild guess!
3. Make an educated guess using a line of reasoning and calculations based on your experiences and estimations.
4. Gather data to help you make a better educated guess. This includes performing experiments, measuring, and searching for data to help your make a more precise estimate.
5. Write a conclusion. State your final answer with possible sources of error. List facts your learned and other questions you still have.