

# Candy Bar Activity

Decide how many breaks it will take to divide a candy bar into 12 equal pieces, and put the answer in your journal.

Then discuss with your group members and write your possible revised solution plan in your journal.

We can think about the main phases of problem solving as defined by G. Polya in How to Solve It:

1. **Understand the problem:** Read or listen to the problem statement, and clarify ambiguities.
2. **Make a plan to solve the problem:** Use pictures, charts, graphs, systematic lists, objects, or act out the solution to help you devise a plan to solve the problem. In computer science, we call this plan an **algorithm**.
3. **Carry out the plan:** Once the plan is conceived and understood, follow the plan. If you have planned well, this is the easy part.
4. **Review and reflect on how the problem was solved:** Once the problem is solved, reflect on the plan that was used, the significance of the problem and solution, etc.

We will implement your plans in class and discuss. Then jot in your journals any further reflections on the solution and any real-life situations you can think of where this type of problem arises.

**For extra credit**, consider also a variation on the problem in which you can stack pieces of your candy bar, break them together, and count that as one break. Then how many breaks does it take to get 12 equal pieces? There may be a theoretical answer and a different answer as to what you can do in practice.