

ICE CREAM POW

For this problem, provide the following:

I. PROBLEM STATEMENT

Write a concise statement of the problem. Write clearly enough so that someone picking up your paper could understand exactly what you were asked to do.

II. PLAN

Tell what you did to prepare to solve the problem. How did the problem seem to you when you first read it? Consider what you are asked to find, what you know, what you need to know, and what strategies you can use. Is this problem like any others you've done? Before you begin to work on the problem, make a guess at the answer to the problem.

III. WORK

Explain in detail what you did to solve the problem. Use charts and graphs where appropriate. Tell what worked, what didn't work, and what you did when you got stuck. Did you get help from anyone? What kind of help?

IV. ANSWER

State your answer(s) to the problem. Does the answer make sense? Could there be other correct answers? Compare your final answer with your original guess. What did you learn from this problem that could help you solve other problems?

HOW MANY SCOOPS?

The seventh grade class at a certain middle school decided to have an ice cream party to celebrate their outstanding grades. They decided to make ice cream cones. But they were all very independent thinkers, and they each wanted to have a different cone.

Unfortunately, the school was only willing to provide them with two ice cream flavors, vanilla and chocolate. They knew that if they used only single-scoop cones, they could only make two different cones: vanilla or chocolate. They figured out that if they used double-scoop cones, they could make four different cones: two scoops of vanilla, two scoops of chocolate, a scoop of chocolate on top of a scoop of vanilla, or a scoop of vanilla on top of a scoop of chocolate.

There are 256 students in this outstanding 7th grade class. How many scoops of ice cream would have to be used in each cone in order to make a different cone for each person?