

## How Many Please?

Leader



Visualize the conditions of the problem and discover a pattern.



You will need:



Do this:

- Help the child to see a correspondence of the number of tables to the area of the rectangle.
- Help the child to see a correspondence of the number of people to the perimeter of the rectangle.




"Enrichment Activities," *Mathematics in Action Grade - 8* Macmillan/McGraw Hill, 1991.

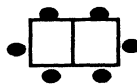
Student \_\_\_\_\_



Do this:

- Alice's Restaurant has 36 small square tables. All of these tables are to be used for a banquet. Each table can seat only one person on each side. Alice pushed all the tables together, end to end, to make one long table. How many people can sit at this table?
- Drawing a diagram will help you solve the problem. From a diagram you can visualize the conditions of the problem and discover a pattern.

One table will seat four people. 

Two tables will seat six people. 



Draw a diagram to answer the following questions:

1. How many people can be seated at three tables? \_\_\_\_\_
  2. How many people can be seated at four tables? \_\_\_\_\_
  3. How many people can be seated at five tables? six tables? \_\_\_\_\_
- You may organize your results in a chart. Complete the chart shown below.

Number of Tables	1	2	3	4	5	6	7	8	9	10
Number of People										

Write in your own words the pattern you discovered.



1. If T represents the number of tables and N represents the number of people, then a formula that you can use to solve Alice's problem is:  
\_\_\_\_\_

2. How many people can sit at 36 small square tables arranged end to end?  
\_\_\_\_\_

3. How many tables would Alice need if 60 people attended a banquet?  
\_\_\_\_\_



WHAT I FOUND