1. Consider the "all candy, no change" problem:

   (a) Made a table and a graph for the problem: you have $25 to spend on $3 Peanut Crunch bars and $2 Fudjie bars. How many ways can you get all candy, no change?

   (b) Repeat the previous part, assuming you have $23.

   (c) What patterns are present in both tables? Both graphs? What differences?

2. (From Brahmagupta, 7th century A.D.) A girl was carrying a basket of eggs, and a man driving a horse hit the basket and broke all the eggs. Wishing to pay for the damage, he asked the girl how many eggs there were. The girl said she did not know, but she remembered that when she counted them by twos, there was one left over; when she counted them by threes, there were two left over; when she counted them by fours, there were three left over; when she counted them by fives, there were four left; and when she counted them by sixes, there were five left over. Finally, when she counted them by sevens, there were none left over. 'Well,' said the man, 'I can tell you how many you had.' What was his answer?

3. A car drives a certain 210 mile stretch of open highway at a constant speed of 60 miles per hour.

   (a) Make a table and a graph of the time and distance traveled by the team on this stretch.

   (b) Does it make sense to connect the points on the graph?

   (c) If the speed were not constant, how might that change the graph of distance and time? Sketch three graphs representing different possibilities, and write a story for each.