

1. Moe has a certain number of square cookies and Larry has one less than three times as many such cookies. If M and L denote the amount of cookies possessed by Moe and Larry respectively:
 - (a) Find the relation between M and L .
 - (b) Find the total number of cookies in terms of M and L .
 - (c) Find the total number of cookies in terms of M .
2. Curly has five times as many cookies as Larry. Denote the number of cookies Curly has by C .
 - (a) Find the relation between C and L .
 - (b) Find the relation between C and M .
 - (c) Denote the total number of cookies possessed by the boys by T . Express T in terms of M .
3. If in the preceding problems it is known that number of cookies is 108, determine the amount of cookies each has.
4. Suppose that the numbers M , L and C are related as in problems 1 and 2. Curly notices that he can arrange his cookies in a square to make one large cookie.
 - (a) Show that this can happen if Moe has two cookies.
 - (b) Find another solution to this problem.
5. Jan purchased some cement blocks and wishes to build a patio floor in the shape of a square and as large as possible. She finds that the largest square she can build does not use all of the blocks; in fact ten blocks are left over. She decides to increase the size of the square she has built by increasing the length and width of the square by one block and finds that she will need nine more blocks to do this. Write the relevant information in this problem in mathematical form and find the number of blocks in the final patio floor.