CS165 hash tables worksheet

name:
id:

1. Given a hash table of size 29, integer hash keys k, and a hash function

$h_1(k) = k\%29$

a) In which slots are 17, 27, 29 and 47 entered?

17: 27: 29: 47:

b) Assume 17, 27, 29 and 47 have been entered using h_1 (as in a)

Using linear probing (step = 1)

In which slot is 46 entered next?

How many collisions occurred?

In which slot is 76 entered next?

How many collisions occurred?

In which slot is 48 entered next?

How many collisions occurred?

c) Again, assume 17, 27, 29 and 47 have been entered using h_1 (as in a)

Using double hashing: $h_2(k) = 11 - k\%11$

In which slot is 46 entered next?

How many collisions occurred?

In which slot is 76 entered next?

How many collisions occurred?

In which slot is 48 entered next?

How many collisions occurred?