7.013 Solutions to:
Applications of recombinant DNA technology

a) 5' CTGAATTACGT 3'

b) No, TA6’s DNA sequence for gene K is different than that found on the note.

c) See above

d) TA1 and TA5. Their DNA samples at the gene L locus do not match the sample found on the bag.

e) The strategy is as follows:
   You design the following two primers to PCR amplify position Z.

   ![Primer Diagram]

   primer 1 primer 2
   5' GTGCA 3' 3' GCTGC

f) i) 1: TA2
   2: TA5
   3: TA1
   4: TA3 or TA6
   5: TA4
   6: TA3 or TA6

   ii) TA3 must have committed this crime. Only TA6 and TA3 match the sample taken from the note. TA6 is no longer a suspect due to part a.