a) **Complementation test**
Geneticists use complementation analysis to determine whether two recessive mutations lie in the same or in different genes.

a) Assign the mutants 1-4 into complementation groups.

1
2,3
4

Total three genes are mutated
Mutant 1 = A1
Mutant 2 = B1
Mutant 3 = B2
Mutant 4 = C1
(Reasoning: There are 3 complementation groups (and therefore, 3 genes). Mutant 1 is alone in one complementation group. Call it group A (although you can call it anything you want. Mutant 2 and 3 are in another group and are allelic. Call this group B and keep call the alleles B1 and B2. Mutant 4 is alone in a separate complementation group. Call this group, group C)

b) Use these allele designations to write genotypes into the table.

	1	2	3	4
1	A1	+	+	+
2	+	B1	B2	+
3	+	B1	B2	+
4	+	+	+	B3