

14-1350-AKT Homework Assignment 6

March-03-14 8:37 AM

This assignment is due in class on Monday,
March 10, 2014.

Question #1.

A. Verify that for matrices, the bracket

$$[A, B] := AB - BA$$

satisfies Jacobi's identity

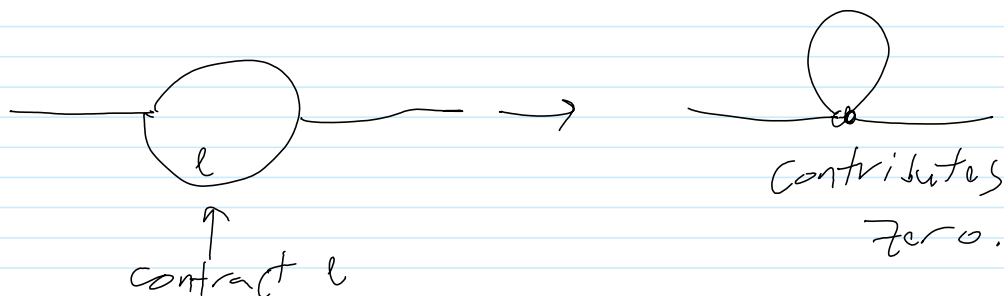
$$[[A, B], C] + \text{cyclic permutations} = 0$$

B. Verify that the STU relation implies
the IHX relation.

C. Did you just do the same thing twice?

Question #2.

Verify that the contribution to $dI(D)$
coming from the contraction of one edge
within a pair that forms a double edge
is zero:



Question #3. Verify the claim that's on

<http://drorbn.net/bbs/show?shot=AKT14-140228-105841.jpg>

(The third and last blackboard shot for Friday
February 28).