

# The Red Dot Technique

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The grading of  $A^W$  can also be computed by counting incoming legs. What are the implications?

The diagram shows an equality between three terms. On the left is a vertex with three legs: one horizontal leg pointing right, one vertical leg pointing up, and one diagonal leg pointing up and right. A red dot is on the horizontal leg. This is equal to the difference of two terms. The first term is a vertex with three legs: one horizontal leg pointing right, one vertical leg pointing down, and one diagonal leg pointing up and right. A red dot is on the horizontal leg. The second term is a vertex with three legs: one horizontal leg pointing right, one vertical leg pointing down, and one diagonal leg pointing down and right. A red dot is on the horizontal leg. A bracket on the right side of the equation points to the two terms on the right and contains the text "This space makes sense!".

This is the proper justification for my earlier "Euler"/"red-part-scattering" technique.

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What does it mean topologically?  
What does it mean Lie-algebraically?