

# Differential Crossed-Modules

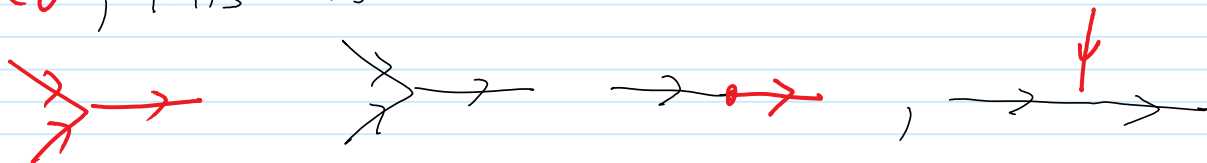
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$\partial: h \rightarrow g$  w/ action of  $g$  on  $h$  by derivations,

$$\text{s.t. (1) } \partial(gh) = [g, \partial h]$$

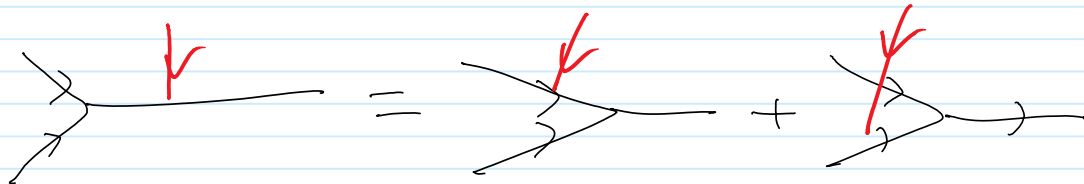
$$(2) (\partial h)h' = [h, h']$$

In diagrammatics, with  $h$  in black and  $g$  in red, this is:

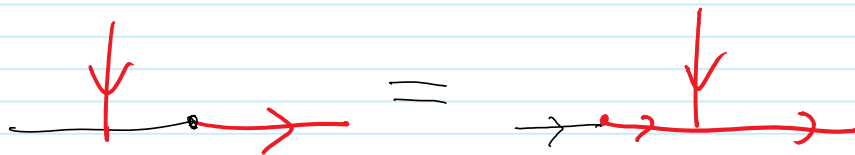


such that

1. Jacobi / FHX in red & black.
2. Act by derivations:



3. Axiom (1):



4. Axiom (2):

