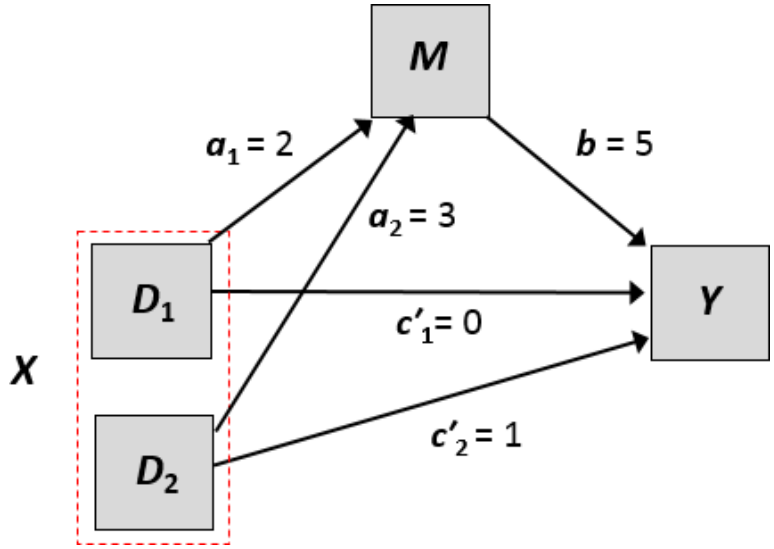
ACTIVITY 2

Consider the path diagram below, where *X* is a multicategorical variable representing three groups coded with two indicator variables D_1 and D_2 , such that

Group 1: $D_1 = 0, D_2 = 0$

Group 2: $D_1 = 1, D_2 = 0.$

Group 3: $D_1 = 0, D_2 = 1$



1. Complete the two regression equations below by filling in the blanks with numbers:

$$\hat{M} = 1.50 + \_\_\_\_\_ D_1 + \_\_\_\_\_ D_2$$

$$\hat{Y} = 2.50 + \_\_\_\_\_ M + \_\_\_\_\_ D_1 + \_\_\_\_\_ D_2$$

2. The mean of *M* for group 2

3. The relative indirect effect for the part of *X* represented by D_1 = _____

4. The difference between the mean of *Y* for group 1 and the mean of *Y* for group 3 is _____