Exercise MLR

The dataset alcohol.csv was collected for a study researching the association of alcohol consumption during pregnancy and newborn's health.

- `birthwt` is the birth weight of the newborn and the outcome variable.
- `mwt0` is the maternal weight before pregnancy
- `ncigpreg` is the number of cigarettes per month during pregnancy (in categories "0" "1-9" ">10")
- `mage` is the maternal age group (4 groups: 13-20, 21-30, 31-35, and 36-55 years old)

Fit a linear model to study the association between birth weight and tobacco consumption during pregnancy, adjusting for maternal weight and maternal age.

1 - How would you report the association between birth weight and tobacco consumption during pregnancy from the model above? Include all the relevant elements to describe the association.

2 - What is the average birth weight difference of babies born from mothers who smoked 1-9 cigarettes a month versus not smoking (0)?

3 - Create the 3 dummies for the variable `mage` manually and refit the model with these dummy variables instead of `mage`. Compare the result with the previous model.

4 - Create the 3 dummies for the variable `mage` manually by making "31-35" the reference category. Refit the model.