Rules of thumb for deciding what statement goes in the null hypothesis and what statement goes in the alternative hypothesis:

(a) What you hope or expect to be able to conclude as a result of the test usually should

be placed in the alternative hypothesis.

(b) The null hypothesis should contain a statement of equality.

(c) The null hypothesis is the hypothesis that is tested.

(d) The null and alternative hypotheses are complementary. That is, the two together exhaust all possibilities regarding the value that the hypothesized parameter can assume.

Usually the temporal sequencing of events helps determine the DV from the IV. The IV occurs first or is the condition one starts with which leads/changes to become the outcome (DV). However, one might not know the sequence or it has not been established yet (what was first the chicken or the egg?) There are instances in statements where one can’t assume which came first.

1. The average (mean) loss of body weight of people who exercise is greater than the average (mean) loss of body weight of people who do not exercise.
* What type of hypothesis is this—null or alternative? alternative
* What is the dependent (outcome) variable? Body weight
* What is the independent variable? Exercise group
* What is the level of measure for the dependent variable? Ratio (pounds)
1. There is no difference between aPTT time (seconds) as measured by the CoaguCheck point-of-care assay and standard laboratory hospital assay for groups of subjects receiving heparin alone, heparin with warfarin, and warfarin and exoenoxaparin.
* What type of hypothesis is this—null or alternative? null
* What is the dependent (outcome) variable? aPTT
* What is the independent variable? groups of subjects receiving heparin alone, heparin with warfarin, and warfarin and exoenoxaparin
* What is the level of measure for the dependent variable? Ratio
1. There is an association between children ED visit per year (Y/N) with food allergies compared to those with insect sting allergies.
* What type of hypothesis is this—null or alternative? alternative
* What is the dependent (outcome) variable? ED visit (Y/N)
* What is the independent variable? Type of allergy (comparing food allergies to insect sting allergies)
* What is the level of measure for the dependent variable? Nominal