**Practice Exercise #1 for Hypotheses**For each of the following hypotheses, determine the following:  
  
the independent (IV) and dependent (DV) variables;  
the level of measurement for each variable; (nominal or dichotomous nominal, ordinal, interval, ratio)  
whether the hypothesis is directional (which direction, if appropriate), non-directional, or null

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| **Hypotheses** | **IV** | **Level of Measurement (IV)** | **DV** | **Level of Measurement (DV)** | **Type of Hypotheses** |
| Students who enter educational research with prior research classes will have higher scores (%) on tests than students who enter educational research without prior research classes. | Research classes –  2 group | Dichotomous Nominal | Scores = % | Ratio | directional |
| The more hours a student studies, the higher the score that student will have on his/her ACT test (scores range from 20-35) |  |  |  |  |  |
| Students’ confidence in their academic ability (5-point likert scale) is related to achievement test scores (ACT – scored on a scale from 1-36). |  |  |  |  |  |
| Students in a computer AND tutor group will score higher on math tests (%) than the computer-only group, and the traditional instruction group. |  |  |  |  |  |
| The average achievement group and the low achievement group will not have any differences in self-worth scores (0-30). |  |  |  |  |  |

