

STA442S08 Solutions to Quiz 2

1. A house can be installed with any types of vent damper. Even if the house already has a vent damper, it can be replaced with another one. Not like gender, we cannot force a person to be a male or a female. Thus, it is possible for houses to be randomly assigned to values of the Vent Damper variable.

One possibility: if the installation is free and the homeowners get to switch to the type of vent damper they prefer after the study for free, participating homeowners should have no objections. Houses that are assigned to electric vent damper will be installed with a *new* electric vent damper and houses that are assigned to thermal vent damper will be installed with a *new* thermal vent damper.

With this random assignment, potential confounding variables will no longer be related to the independent variable and or the dependent variable, and if the difference in average energy consumption between the two types of damper is significant, it will be possible to say that the difference was *caused* by the type of damper.

Note that homeowners may know the type of vent damper installed in their homes, so there could be expectancy effects involved in the study but it is not being asked in this question.

2. 2.9641170
3. 18
4. 39 ft

You get zeros for these questions 2, 3 and 4 if

- you used other's account to produce the files;
- you didn't hand in both .log and .lst files;
- the date and time on .log and .lst files were not the same;
- there were errors in your .log file or;
- there were warnings in your .log file.

You are *strongly* recommended to use SAS on tuzo.