What Type of Variable?

1. Temperature (^{o}F)
2. Habitat complexity (*low, medium, high*)
3. Home range size (*m^2*)
4. Brood size
5. Forest type (*deciduous, mixed, coniferous*)
6. Number of docks (on a lake shoreline)
7. Ecoregion (*Northern Lakes & Forests, North Central Hardwood Forests, Driftless Area, Southeastern Wisconsin Till Plains, Central Corn Belt Plains*)
8. Survived (*yes, no*)
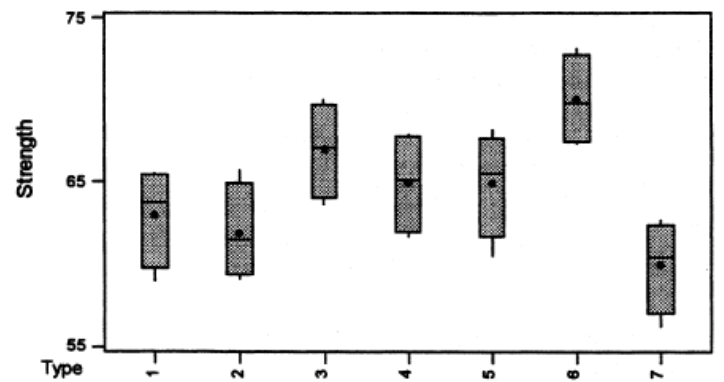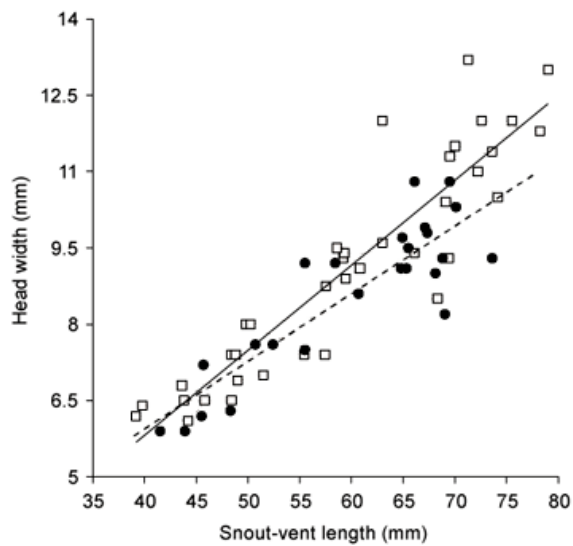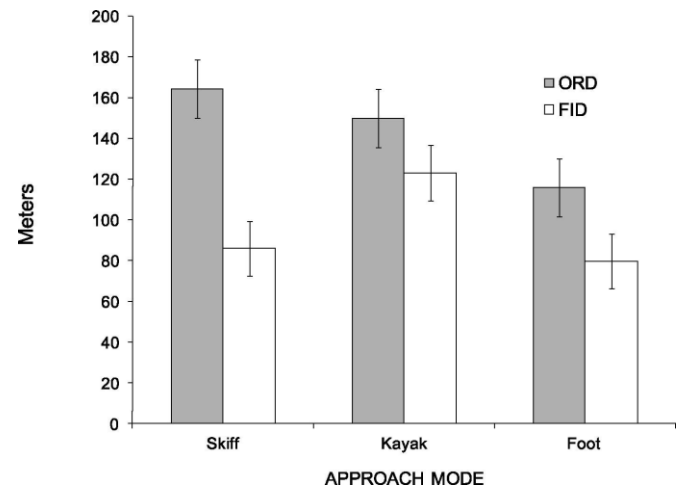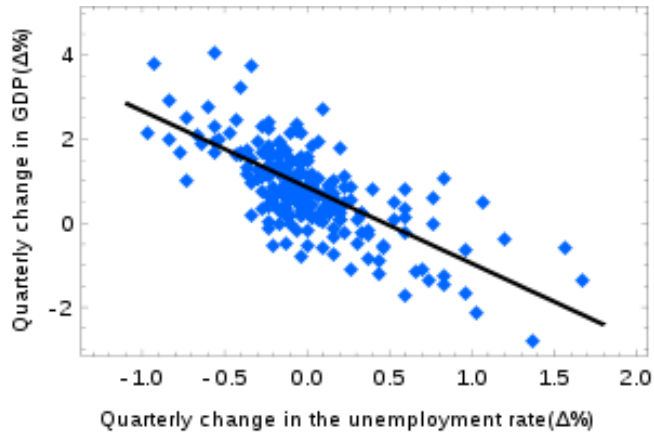9. Age (*years*)
10. Race

What is the Response Variable?

1. Can length be used to predict weight?
2. How is weight affected by typical daily ration?
3. Does metabolic rate differ by sex of rabbit?
4. Is gas mileages significantly affected by weight of the car?
5. Is there a relationship between how much money a person makes and their satisfaction with deer harvest regulations?
6. How is the uptake of heavy metals affected by the sex and age (young, middle, old) of the individual?
7. Is there a relationship between how much money a person makes and how much they weigh?

Which Test? Why?

1. Does bird species diversity (number of species) decline as you move away from the equator (increase latitude)?

2. Does the mean length of the anterior adductor muscle scar on a mussel species differ among five locations?

3. Does whether or not an otter captures a bluegill depend on the total length of the bluegill?

4. Is there a difference in fat reserves (thickness in mm) between wild and domestic seals, sex of the seal, or the interaction between the seal type and sex?

5. Does the relationship between the number of times the word gender was used in a journal volume and the year of the volume differ among three different journals?

6. Does the relationship between resting heart rate and body weight differ among groups of subjects that had or had not ingested caffeine?

7. Does the mean alcohol by volume differ among five different types of beer (pale ales, IPAs, lagers, stouts, and porters)?

8. Does mean alcohol by volume change depending on the weight of malt extract used in the brewing process?

Box plots by response type. Means are indicated by solid circles.