

Question 1.30

- a. The IVPPSS is ...
- Individual – a Rusty Crayfish in the lake with Smallmouth Bass in 2012
 - Variable – carapace length of Rusty Crayfish
 - Population – **all** Rusty Crayfish in the lake with Smallmouth Bass in 2012
 - Parameter – mean carapace length of **all** Rusty Crayfish in the lake with Smallmouth Bass
 - Sample – 235 Rusty Crayfish in the lake with Smallmouth Bass in 2012 that were actually examined
 - Statistic – mean carapace length of 235 Rusty Crayfish in the lake with Smallmouth Bass in 2012
- b. Carapace length is a continuous quantitative variable.

Question 1.31

- a. IVPPSS is ...
- Individual – a ballast tank on an ocean-going vessel in 2001.
 - Variable – whether or not the tank contain any living organisms.
 - Population – **all** ballast tanks on ocean-going vessels in 2001.
 - Parameter – proportion of **all** ballast tanks that contained living organisms.
 - Sample – 43 ballast tanks in 2001.
 - Statistic – proportion of 43 ballast tanks that contained living organisms.
- b. Whether or not the tank contains any living organisms is a nominal categorical variable.

Question 1.32

The concentration of lead is a continuous quantitative variable.

Question 1.33

The risk rating is an ordinal categorical variable.

Question 1.34

The information type is a nominal categorical variable.

Question 1.35

The Koppen scheme is a nominal categorical variable (unless you "see" an order (e.g., decreasing temperature?) among the categories, in which case it would be an ordinal categorical variable).

Notes from the Professor

- Make sure you follow the directions for formatting your homework found [here](#) – including (1) making sure to include and sign the "Honor Statement", using complete sentences, not double-spacing results

in tables, and making sure that tables and figures are labeled and referred to as described [here](#). Failure to do so will result in missed points on the next homework.

- In question 1.31, the individual is not a vessel because multiple ballast tanks were sampled from some vessels.
- Recall that we will call a categorical variable with only two levels a nominal variable. More specifically, this is a binomial variable.