1. (a) The 10 cases are *instances of someone coming to the concession stand and not buying food or drink.*
   (b) There are a total of 400 cases.
   (c) One variable might be called "food purchased", a categorical variable with values "Pizza", "Hot Dog", "No Food"; the other is "drink purchased", again categorical with 3 possible values.
   (d) A drink was purchased in the proportion $(110 + 68)/182 \doteq 0.978$.
   (e) The proportion/relative frequences are $68/182 \doteq 0.374$ for pizza and $62/158 \doteq 0.392$ for hot dogs. So, no, water is *not* sold at a higher relative frequency with pizza.
   (f) (ii)

2. (ii)

3. Many of these have more than one possible command to do the job. I give one possibility for each.

```
nrow(bears)                                  # answer to part (a)
mean(~ annualSalary, data=employees)         # answer to part (b)
tally(hairColor ~ eyeColor, data=traits)     # answer to part (c)
gf_boxplot(gpa ~ sex, data=students)         # answer to part (d)
names(students)                              # answer to part (e)
filter(houses, bdrmCount > 2)                # answer to part (f)
gf_point(gasMileage ~ weight, data=trucks)   # answer to part (g)
lm(gasMileage ~ weight, data=trucks)         # answer to part (h)
```

4. D, A, C, B, in that order

5. (i), (iii), (v) and (vi)

6. (a) B, C, A, D, in that order
   (b) (ii) and (iv)
   (c) (i), (iii) and (iv)
   (d) Because the distribution is left-skewed, the **median** is larger than the mean.
   (e) C
   (f) A

7. (a) (ii)
   (b) (i)

8. MP, OS, CR—in that order

9. (a) It is a statistic, since it is computed from a sample.
   (b) Taking $\bar{x} = 236$ and $\text{SE}_{\bar{x}} = 12.37$, or 95% CI is:

$$\bar{x} \pm (2)(\text{SE}_{\bar{x}}) \;=\; 236 \pm (2)(12.37), \qquad \text{or} \qquad (211.26, 260.74).$$

   (c) (ii)