## Name: \_

## Math 345 Elementary Statistics - Crawford

Books and notes (in any form) are not allowed. Show your set-up and work. Good Luck!

**1.** (6 pts) The following data gives the total home game playing time (hours) for all Major League Baseball teams in a recent year (based on data from Baseball Prospectus).

| 236 | 237 | 238 | 239 | 241 | 241 | 242 | 245 | 245 | 245 | 246 | 247 | 247 | 248 | 248 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 249 | 250 | 250 | 250 | 251 | 252 | 252 | 253 | 253 | 258 | 258 | 258 | 260 | 262 | 264 |

(a). Use a class width of 5 hours and a starting time of 235 to

(i) Construct a frequency distribution (i

(ii) Construct a relative frequency distribution.

(b). If you wanted 8 classes, determine the class width. [Do <u>not</u> construct the frequency distribution.]

**2.** (6 pts) The data below gives the cost in dollars for a marriage proposal package at the different Major League Baseball stadiums. (Five stadiums don't allow proposals.)

| 39  | 50  | 50  | 50  | 55  | 55  | 75  | 85  | 100 | 115 | 175  | 175  | 200 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|
| 209 | 250 | 250 | 350 | 400 | 450 | 500 | 500 | 500 | 500 | 1500 | 2500 |     |

(a). Find each of the following. [You may use the STAT/LIST features of your calculator, when possible.]

mean median mode midrange

(b). Do any of the data values seem like outliers? If so, which one(s)?

**3.** (3 pts) Answer the following questions about types of data and sampling.

(a). Determine whether the data described below is from a *discrete* or *continuous* data set.

A device is used to record the length of time drivers look at their phones while driving.

(b). Determine whether the type of sampling used below is random, systematic, convenience, stratified, or cluster.

A Homeowner's Association sends a survey to all the homeowners in the association to see if they would like the snow removal contractors to start using pet-friendly ice melt.