1. 2 pts. each   347 human resource professionals were surveyed, and 73% said that their companies conduct criminal background checks on all job applicants.

   (a) What is the exact value that is 73% of the 347 survey subjects?

   (b) What is the actual number of survey subjects who said their company does background checks on all applicants?

   (c) Assume 112 of the survey subjects were women. What percentage of those surveyed are women?

2. 2 pts. each   Identify the data as discrete or continuous.

   (a) The exact heights of maple trees.

   (b) The number of 1984 dimes currently in existence.

   (c) The distance to the Andromeda galaxy, to the nearest tenth of a millimeter.

3. 2 pts. each   Identify the data set's level of measurement.

   (a) The top five German language books selling on Amazon at this moment: (1) Frühstück mit Elefanten; (2) Fifty Shades of Grey: Befreite Lust; (3) Bürgerliches Gesetzbuch; (4) Was ich an dir liebe; (5) Einfach schlank und fit.

   (b) The political parties in the German Bundestag are: Union, SPD, Grünen, Linke.

   (c) The average ticket prices for 10 Broadway shows in 2012: $110, $88, $181, $97, $67, $133, $72, $103, $62, $79.

   (d) The heights in feet of a sample of pine trees are: 45, 67, 54, 24, 63, 34, 16, 83, 26, 84, 38, 57, 27, 82.

   (e) The daily high temperatures in degrees Fahrenheit for Mohave in a week are: 93, 91, 86, 94, 102, 104, and 101.

4. 2 pts. each   Identify which type of sampling is used: random, systematic, convenience, stratified, or cluster.

   (a) During an election, CNN conducted an exit poll in which specific polling stations were randomly selected and all voters were surveyed as they were leaving.

   (b) In a library, five books are randomly selected from each of the categories of science, history, and fiction. The numbers of pages in the fifteen books were then determined.

   (c) Satellites are used to collect sample data for estimating deforestation rates. The Forest Resources Assessment of the United Nations Food and Agriculture Organization uses a method of selecting a sample of a 10-km-wide square at every 1° intersection of latitude and longitude.

5. 10 pts. Create a frequency distribution having six classes for the following data representing high temperatures during January 2017 for Lansdale:

$$
\begin{array}{cccccccc}
46 & 37 & 46 & 51 & 33 & 31 & 23 & 23 \\
25 & 38 & 51 & 63 & 55 & 32 & 36 & 41 \\
41 & 43 & 43 & 39 & 45 & 46 & 43 & 43 \\
52 & 54 & 41 & 36 & 41 & 36 & 36 &
\end{array}
$$

6. 10 pts. Make a relative frequency histogram out of the frequency distribution created in the previous problem, labeling each class using class midpoints.

7. 10 pts. Make a frequency polygon out of the frequency distribution created in Problem 5.

8. 10 pts. Make a stem-and-leaf plot of the data in Problem 5 using five stems.