1. Explain why each of the following is or is not a variable. For those which are not variables, use one (1) sentence to explain why. For those which are variables, classify the variable as qualitative, quantitative, or ordinal. If the variable is quantitative, provide appropriate units and state if the variable is continuous or discrete.

   **(a)** coins in your pocket

   **(b)** shoe size

   **(c)** bills in your wallet

   **(d)** the amount of money in your wallet

   **(e)** the number of bills in your wallet

   **(f)** type of shoe

   **(g)** pages in *Fundamental Statistics* by Michael

        Sullivan, III

   **(h)** DVDs

   **(i)** the number of students in STAT 117

   **(j)** the titles of the DVD's that you have watched

        within the past two weeks

   **(k)** FSU grades

   **(l)** manufacturer

   **(m)** name of manufacturer

   **(n)** Elementary school grades

   **(o)** Middle school grades

   **(p)** cars

   **(q)** the number of shirts in your closet

   **(r)** the number of hairs on your head

   **(s)** hairs on your head

   **(t)** amount of paint that you buy at Home Depot

   **(u)** religious affiliation

   **(v)** the number of cars on Route 9 in

        Massachusetts at 12 PM

   **(w)** the cholesterol in your blood

   **(x)** the amount of cholesterol in your blood

   **(y)** the types of cholesterol in your blood

2. For each scenario given below, identify the variables and state the level of measurement for each variable.

   **(a)** You are hired by a lawyer who represents a variety of professional baseball players. Your first assignment for your new employer is to analyze the data below for the positions of the thirty-six top-paid baseball players as of February 2000.

| Player | Position | Player | Position | Player | Position | Player | Position |
|--------|----------|--------|----------|--------|----------|--------|----------|
| Kevin Brown | Pitcher | Greg Maddux | Pitcher | Mark McGuire | 1st Base | Robin Ventura | 3rd Base |
| Randy Johnson | Pitcher | Sammy Sosa | Right Field | Wilson Alvarez | Pitcher | Chuck Finley | Pitcher |
| Albert Belle | Right Field | Barry Bonds | Right Field | Rapheal Palmeiro | 1st Base | Al Leiter | Pitcher |
| Bernie Williams | Center Field | Derek Jeter | Shortstop | Ivan Rodriquez | Catcher | Brian Jordan | Center Field |
| Mike Piazza | Catcher | Raul Mondesi | Right Field | Matt Williams | 3rd Base | Ray Lankford | Center Field |
| Larry Walker | 1st Base | Gary Sheffield | Right Field | Andres Gallarraga | 1st Base | Juan Gonzalez | 1st Base |
| David Cone | Pitcher | Tom Glavine | Pitcher | John Smoltz | Pitcher | Kenny Rogers | Pitcher |
| Pedro Martinez | Pitcher | Shawn Green | Right Field | Jim Thome | 1st Base | Kenny Lofton | Center Field |
| Mo Vaughn | 1st Base | Ken Griffey, Jr. | Center Field | Todd Stottlemyre | Pitcher | Alex Rodriguez | Shortstop |

   **(b)** A random sample of thirty-six (36) couples who had been married for seven years was surveyed regarding the number of children they had. The results of the survey are given below.

           0    0    3    1    2    3    4    2    3    2    2    4

           3    4    3    3    0    3    0    3    3    3    2    1

           1    2    1    3    0    3    2    1    3    4    1    3

   **(c)** The number of annual hurricanes the occurred for each year between 1970 and 2000, inclusive, is given below.

        2, 1, 0, 1, 2, 3, 2, 1, 2, 0, 2, 4, 1, 1, 3, 3, 0, 1, 3, 2, 1, 2, 1, 1, 0, 5, 1, 1, 3, 2, 3

   **(d)** You are hired to analyze the class year for a group of students who participated in a focus group as part of summer orientation.

   Freshman, Freshman, Sophomore, Freshman, Junior, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Sophomore, Junior, Freshman, Freshman, Freshman, Freshman, Freshman, Senior, Freshman, Freshman, Freshman, Freshman, Freshman, Sophomore, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Junior, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Sophomore, Freshman, Freshman, Freshman, Junior, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman, Freshman.