1a) length, shapeWidth, num1, mainComputerNumber

1b) my var: Illegal because it has a space in it.
    5length: Illegal because it begins with a number.
    shape@: Illegal because of invalid special character
    int: Illegal because it is a word that is already reserved for use within Java

2a) `int numBeads;`
    `numBeads = 5;`

2b) `int numBeads = 5;`

3a) The final value is 13.

3b) The final value is 11.

4a) int

4b) double

4c) int

4d) int or double; depends if you want just the average of the age in years, or if you want to be more precise and use decimal places to represent months and days.

4e) boolean

4f) char

5a) A primitive data type stores one piece of data, whilst an abstract data type defines the operations/actions performed on a dataset.

5b) A class is something that defines a set of data and includes methods to perform operations on that data. An object, on the other hand, is a variable declared with a class that references the memory where data and methods are stored in that object.

11a) y = j * (int)(k + 0.5);

11b) z = (double)j * k;

11c) Type casting is unnecessary because all variables are already doubles.

11d) j = (int)(k + 0.5)

11e) k = (double)j

11f) Type casting is unnecessary because all variables and numbers are integers.