

Problem 1.1

Here is an excerpt from the baby-name data table in "DataComputing::BabyNames".

- a) Taffy b) year c) sex d) name e) count
- b) For each, choose one of the following:

1. It's a categorical variable.

Ans: sex names

2. It's a quantitative variable.

Ans: year, count

3. It's the value of a variable for a particular case.

Ans: Taffy

Problem 1.2

What's not tidy about this table?

Ans:

In office should be two columns to be able to represent a range.

"It depends" is a qualitative observation while other number of states observations are quantitative.

Problem 1.3

Re-write Table 1.7 in a tidy form. Take care to render the information about years and about the number of states as numbers.

President	in office from	in office to	number of states
Lincoln, Abraham	1861	1865	--
George Washington	1791	1799	16
Martin Van Buren	1837	1841	26

Problem 1.4

Here are three different organizations (A, B, and C) of the same data:

- 1. What are the variables in each table?

Ans:

Table A: Year, Algeria, Brazil and Columbia

Table B: Country, Y2000, Y2001

Table C: Country, Year, Value

- 2. What is the meaning of a case for each table? Here are some possible choices. • A country • A country in a year • A year

Ans:

Table A: A year

Table B: A country

Table C: A country in a year

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#### Problem 2.2

Which of these kinds of names should be wrapped with quotation marks when used in R?

1. function name
2. file name
3. the name of an argument in a named argument
4. object name

Ans:

2. filename, because it is represented as a char array/string.

#### Problem 2.3

Look at the documentation for the CPS85 data table in the mosaicData package. From reading that documentation, what is the meaning of CPS?

Ans: CPS85 stands for Current Population Survey.

#### Problem 2.6

Some of these are legitimate object names, others are not. For the ones that are not legitimate, say what is wrong.

1. essay14
2. first-essay
3. "MyData"
4. third\_essay
5. small sample
6. functionList
7. FuNcTiOnLiSt
8. .MyData.
9. sqrt()

Ans:

- 2: "-" is not allowed
- 3: Quotation marks are not allowed, since an object name are a reference cannot be a string.
- 5: No space should be allowed.