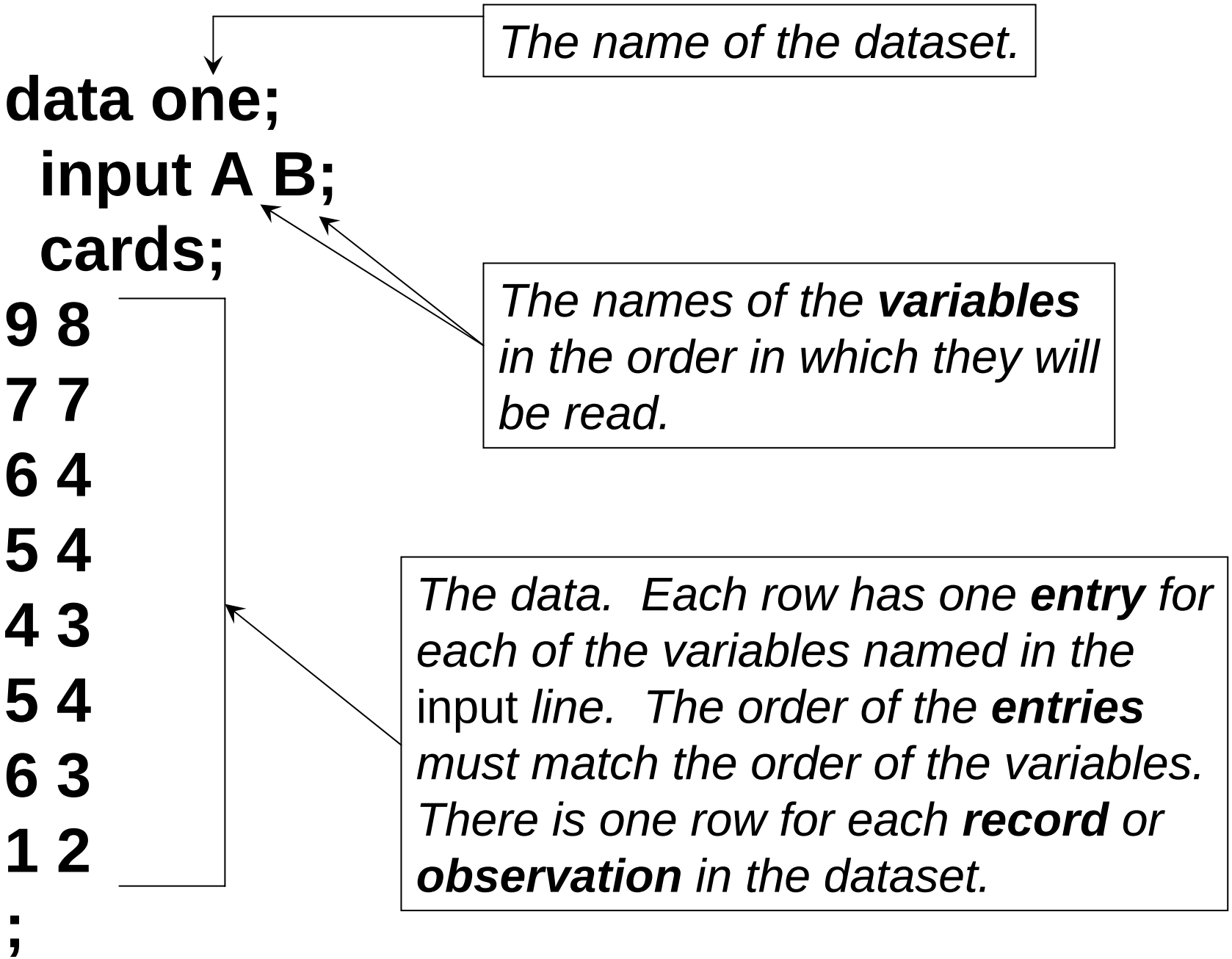
data one;
input A B;
cards;
9 8
7 7
6 4
5 4
4 3
5 4
6 3
1 2
;
The name of the dataset.
The names of the variables in the order in which they will be read.
The data. Each row has one entry for each of the variables named in the input line. The order of the entries must match the order of the variables. There is one row for each record or observation in the dataset.

Obs	A	B
1	9	8
2	7	7
3	6	4
4	5	4
5	4	3
6	5	4
7	6	3
8	1	2

The third observation, which in this case corresponds to a pair of trees, has A=6 and B=4.

"proc" stands for procedure. We will use many SAS procedures this semester.

proc print;
run;

These commands ask SAS to print (to the screen) the contents of the most recently created dataset.

"run" tells SAS to execute the commands of the procedure.

data one; set one;
difference=A-B;
run;

These commands ask SAS to
(1) make a new dataset called "one,"
(2) put into the new dataset the contents of the old dataset called "one," *and*
(3) add the variable "difference" *(which is defined as A – B) to the new dataset.*

Obs	A	B	difference
1	9	8	1
2	7	7	0
3	6	4	2
4	5	4	1
5	4	3	1
6	5	4	1
7	6	3	3
8	1	2	-1

The third observation has A=6, B=4, and difference=2.

```
proc means data=one mean std stderr
                              clm t probt alpha=0.05;
  var difference;
run;
```

These commands tell SAS to use the "means" procedure on the variable "difference" in the dataset called "one" to compute the mean, standard deviation, standard error of the mean, 95% confidence limits for the population mean (a 95% confidence interval), and a t-statistic and p-value for the two-sided test whose null hypothesis says that the population mean is zero.

The MEANS Procedure

Analysis Variable : difference

Mean	Std Dev	Std Error	Lower 95% CL for Mean	Upper 95% CL for Mean	t Value	Pr > |t|
1.0000000	1.1952286	0.4225771	0.000763876	1.9992361	2.37	0.0499

$\bar{Y}$

s

$\frac{s}{\sqrt{n}}$

$t = \frac{\bar{Y} - 0}{s / \sqrt{n}}$

confidence interval for population mean

two-sided *p*-value