

```
1 DATA MILES;
2 INPUT miles 1-4;
3 DATALINES;
4 26.6
5 30.4
6 32.5
7 26.3
8 31.0
9 25.9
10 29.7
11 24.8
12 30.6
13 28.1
14 ;
15
16 PROC MEANS DATA = MILES N CLM LCL MAXDEC=2;
17
18 RUN;
19 PROC MEANS DATA = MILES N LCLM MAXDEC=2;
20
21 RUN;
22
23 PROC MEANS DATA = MILES N UCLM MAXDEC=2;
24
25 RUN;
26
```

The MEANS Procedure

Analysis Variable : miles		
N	Lower 95% CL for Mean	Upper 95% CL for Mean
10	26.73	30.45

The MEANS Procedure

Analysis Variable : miles	
N	Lower 95% CL for Mean
10	27.08

The MEANS Procedure

Analysis Variable : miles	
N	Upper 95% CL for Mean
10	30.10

1)

- a) (26.73, 30.45)
- b) Based on the result, I could 95 % confident to say that the mean population is between 26.73 and 30.45.

2)

- a) (27.08 , infinity)
- b) Based on the result, I could 95 % confident to say that the mean population is higher than 27.08.

3)

- a) (0 , 30.10)
- b) Based on the result, I could 95 % confident to say that the mean population is lower than 30.10.

4)

I believe that the consumer group would be most likely interested in the two-sided confidence interval because the two-sided confidence interval provides more information than the others. The interval shows the lower and upper bound whereas the other two one-sided confidence intervals provide only one side bound. The consumer group would like to know more accurate result. Therefore, the consumer group would be most likely interested in the two-sided confidence interval.