Q1(5),2(5),5(5), 9(5), 16(10),17(10), and 24 (a-g, 35) =75 70/75 = 93.3

Intro to SAS HW Chapter 7

Ian Liu

HW Chapter 7 Q1

1. Which of the following is a valid macro variable name?

   a. 01_01_1960
   b. _SP4EVR_
   c. Charlie'sPlace
   d. S.O.S.

B. _SP4EVR_

HW Chapter 7 Q2

2. If the following code is submitted and then followed by a PROC PRINT, what will be the resulting title in the output?

```
%LET title = The Amazing Race;

TITLE '&title';
```

   a. The Amazing Race
   b. &title
   c. title
   d. '&title'

a. The Amazing Race Correct Answer is B -5

HW Chapter 7 Q5

5. Suppose that the following code is submitted to assign a libref name to a macro variable called &lib. Which PROC PRINT will create output for the SAS data set called SASHELP.CARS?

```
%LET lib = sashelp;
```

a. `PROC PRINT DATA = &lib.cars; RUN;`
b. `PROC PRINT DATA = &lib..cars; RUN;`
c. `PROC PRINT DATA = "&lib.cars"; RUN;`
d. `PROC PRINT DATA = "&lib..cars"; RUN;`

b. PROC PRINT DATA = &lib..cars; RUN;

HW Chapter 7 Q9

9. Which CALL SYMPUTX statement correctly assigns a value to a macro variable called &dflag based on the SAS data set variable called X?

a. `CALL SYMPUTX("dflag",X);`
b. `CALL SYMPUTX(dflag,"X");`
c. `CALL SYMPUTX("dflag","X");`
d. `CALL SYMPUTX(dflag,X);`

a. CALL SYMPUTX("dflag", X);

HW Chapter 7 Q16

16. Explain why the macro variable &n does not require double quotation marks in the following DATA step.

```
%LET n = 12;
DATA ampm;
  SET times;
  NewTime = OldTime + &n;
RUN;
```

&n is a numeric value. Adding quotation marks would mean adding 12 to the end of OldTime instead of getting a sum from OldTime and 12.

HW Chapter 7 Q17

17. What is the difference between a macro variable and a macro?

Macros are like functions in other programming languages and can contain complex logic or statements. Macro variables, on the other hand, are more like variables that have a text string as their value. The purpose of macro variables is to substitute text strings so that one doesn't have to change every occurrence of the text string. The purpose of macros is to execute complex commands without having to rewrite and repeat them everytime.

HW Chapter 7 Q24

24. Suppose that at a local university the study guidelines for the College of Science and Math are to study two to three hours per unit per week. The instructor of the class, Orientation to the Statistics Major, takes these guidelines very seriously. He asks students to record their study time each week and then he runs a report to monitor their progress. The SAS data set called STUDYTIME contains student identification information, orientation course-section number, number of units enrolled, and time studied for the final week of classes.

    a. Examine this SAS data set including the variable labels and attributes. Create a variable that calculates the time studied per unit for each student.
    b. Use the variable from part a) to calculate the average time studied per unit per section. Output these statistics to a data set.
    c. Create a macro that will print the data for all students in a specified section. Include the section number in the title.
    d. Specify an option that will enable you to see the values of the macro variables as details in the log.
    e. Create a footnote based on the average time studied per unit per section from part b). If the section average meets the minimum two hours of study time, the footnote should state that the average study time was met for the section. For a section average that is less than the minimum study time, the footnote should state that the average was not met. Add this footnote to the report.
    f. Include programming that will add the calculated section average time from part b) to the footnote. Round the average time to two decimal places.
    g. Call the macro once for each section.

a

```
PROC OPTIONS OPTION=MACRO;
RUN;

/* 24A */
```

```
DATA STUDYTIME;
  set '/home/u62223361/Intro to SAS/HW7/studytime.sas7bdat';
RUN;

PROC CONTENTS DATA = STUDYTIME;
RUN;

DATA STUDYTIME;
        SET STUDYTIME;
        TIME_PER_UNIT = TIME/UNITS;
RUN;
```

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69         PROC OPTIONS OPTION=MACRO;
70         RUN;

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 MACRO             Enables the macro facility.
NOTE: PROCEDURE OPTIONS used (Total process time):
      real time           0.00 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              208.87k
      OS Memory           20896.00k
      Timestamp           04/18/2024 02:41:35 AM
      Step Count                        248  Switch Count  0
      Page Faults                       0
      Page Reclaims                     15
      Page Swaps                        0
      Voluntary Context Switches        0
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           0
```
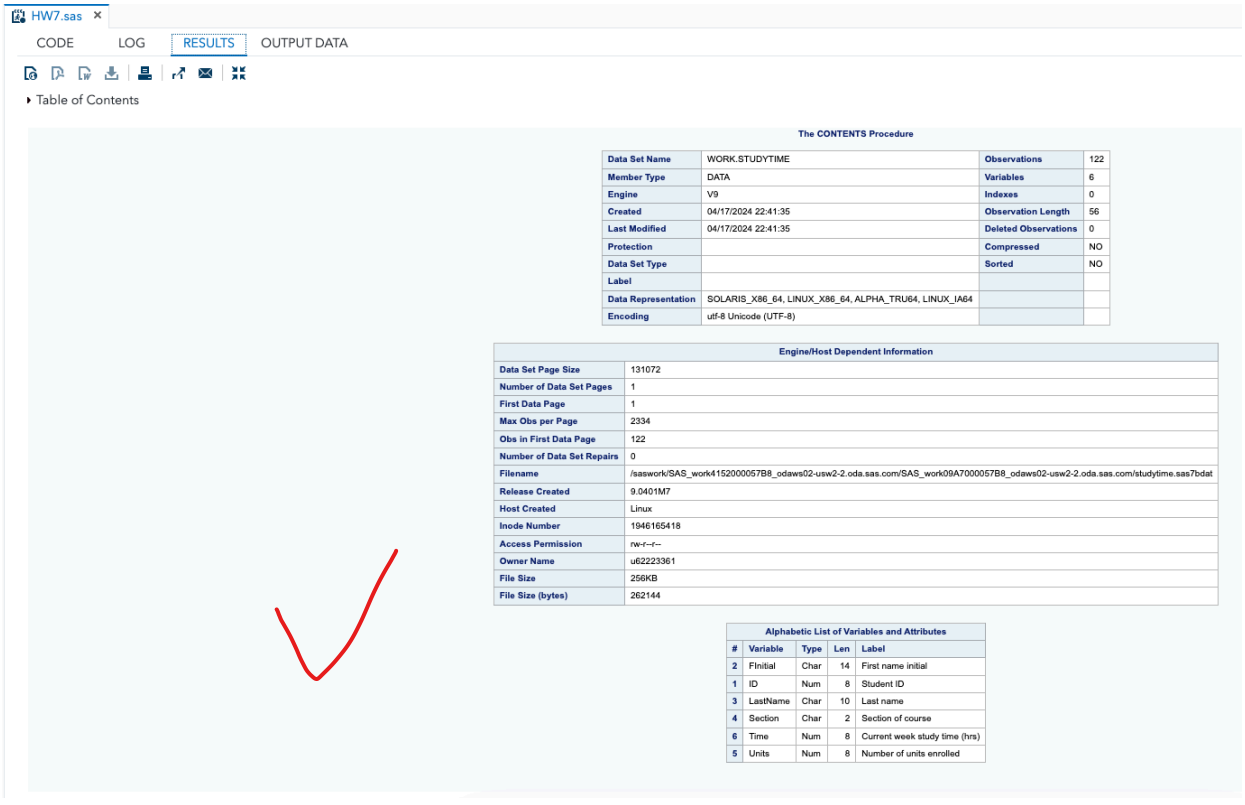

```
71
72          /* 24A */
73
74          DATA STUDYTIME;
75            set '/home/u62223361/Intro to SAS/HW7/studytime.sas7bdat';
NOTE: Data file WC000001.STUDYTIME.DATA is in a format that is native to another host, or the file encoding does not match the
      session encoding. Cross Environment Data Access will be used, which might require additional CPU resources and might reduce
      performance.
76          RUN;

NOTE: There were 122 observations read from the data set /home/u62223361/Intro to SAS/HW7/studytime.sas7bdat.
NOTE: The data set WORK.STUDYTIME has 122 observations and 6 variables.
NOTE: DATA statement used (Total process time):
      real time           0.00 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              1031.43k
      OS Memory           21412.00k
      Timestamp           04/18/2024 02:41:35 AM
      Step Count                        249  Switch Count  3
      Page Faults                       0
      Page Reclaims                     218
      Page Swaps                        0
      Voluntary Context Switches        22
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           272


77
78          PROC CONTENTS DATA = STUDYTIME;
79          RUN;


77
78          PROC CONTENTS DATA = STUDYTIME;
79          RUN;

NOTE: PROCEDURE CONTENTS used (Total process time):
      real time           0.02 seconds
      user cpu time       0.03 seconds
      system cpu time     0.00 seconds
      memory              1792.96k
      OS Memory           21928.00k
      Timestamp           04/18/2024 02:41:35 AM
      Step Count                        250  Switch Count  0
      Page Faults                       0
      Page Reclaims                     139
      Page Swaps                        0
      Voluntary Context Switches        0
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           16
```

```
80
81          DATA STUDYTIME;
82          SET STUDYTIME;
83          TIME_PER_UNIT = TIME/UNITS;
84          RUN;

NOTE: There were 122 observations read from the data set WORK.STUDYTIME.
NOTE: The data set WORK.STUDYTIME has 122 observations and 7 variables.
NOTE: DATA statement used (Total process time):
      real time           0.00 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              959.21k
      OS Memory           21928.00k
      Timestamp           04/18/2024 02:41:35 AM
      Step Count                        251  Switch Count  2
      Page Faults                       0
      Page Reclaims                     126
      Page Swaps                        0
      Voluntary Context Switches        14
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           264


85
86          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
96
```



The CONTENTS Procedure

Data Set Name	WORK.STUDYTIME	Observations	122
Member Type	DATA	Variables	6
Engine	V9	Indexes	0
Created	04/17/2024 22:41:35	Observation Length	56
Last Modified	04/17/2024 22:41:35	Deleted Observations	0
Protection		Compressed	NO
Data Set Type		Sorted	NO
Label			
Data Representation	SOLARIS_X86_64, LINUX_X86_64, ALPHA_TRU64, LINUX_IA64		
Encoding	utf-8 Unicode (UTF-8)		

Engine/Host Dependent Information

Data Set Page Size	131072
Number of Data Set Pages	1
First Data Page	1
Max Obs per Page	2334
Obs in First Data Page	122
Number of Data Set Repairs	0
Filename	/saswork/SAS_work415200057B8_odaws02-usw2-2.oda.sas.com/SAS_work09A7000057B8_odaws02-usw2-2.oda.sas.com/studytime.sas7bdat
Release Created	9.0401M7
Host Created	Linux
Inode Number	1946165418
Access Permission	rw-r--r--
Owner Name	u62223361
File Size	256KB
File Size (bytes)	262144

Alphabetic List of Variables and Attributes

#	Variable	Type	Len	Label
2	FInitial	Char	14	First name initial
1	ID	Num	8	Student ID
3	LastName	Char	10	Last name
4	Section	Char	2	Section of course
6	Time	Num	8	Current week study time (hrs)
5	Units	Num	8	Number of units enrolled

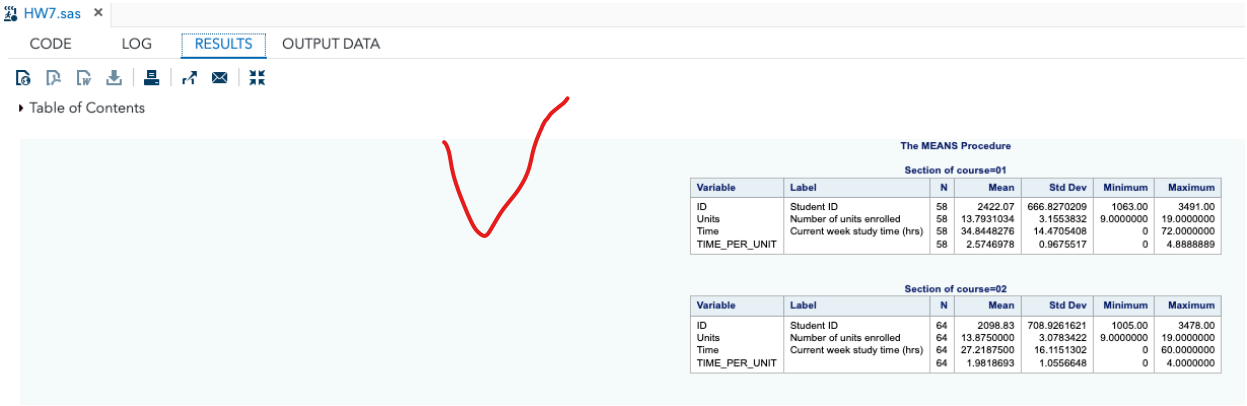
b

```
/* 24 B */
PROC SORT DATA = STUDYTIME;
BY SECTION;
RUN;
PROC MEANS DATA = STUDYTIME;
BY SECTION;
OUTPUT OUT = STUDYTIME_STATS;
RUN;
```

Try to use VAR to list of variables of interest.

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69         /* 24 B */
70         PROC SORT DATA = STUDYTIME;
71         BY SECTION;
72         RUN;

NOTE: There were 122 observations read from the data set WORK.STUDYTIME.
NOTE: The data set WORK.STUDYTIME has 122 observations and 7 variables.
NOTE: PROCEDURE SORT used (Total process time):
      real time           0.00 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              928.00k
      OS Memory           21416.00k
      Timestamp           04/18/2024 02:43:12 AM
      Step Count                        257  Switch Count  2
      Page Faults                       0
      Page Reclaims                     132
      Page Swaps                        0
      Voluntary Context Switches        13
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           264
```

```
73          PROC MEANS DATA = STUDYTIME;
74          BY SECTION;
75          OUTPUT OUT = STUDYTIME_STATS;
76          RUN;

NOTE: There were 122 observations read from the data set WORK.STUDYTIME.
NOTE: The data set WORK.STUDYTIME_STATS has 10 observations and 8 variables.
NOTE: PROCEDURE MEANS used (Total process time):
      real time           0.03 seconds
      user cpu time       0.03 seconds
      system cpu time     0.00 seconds
      memory              3057.93k
      OS Memory           23212.00k
      Timestamp           04/18/2024 02:43:12 AM
      Step Count                        258  Switch Count  4
      Page Faults                       0
      Page Reclaims                     381
      Page Swaps                        0
      Voluntary Context Switches        22
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           280


77
78          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
88
```



C

```
/* 24C */
%MACRO SECTIONDATA (SECTION_NUM=);
        PROC PRINT DATA = STUDYTIME;
                WHERE SECTION = "0&SECTION_NUM";
                TITLE "DATA FOR SECTION &SECTION_NUM";
        RUN;
%MEND SECTIONDATA;
```

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69         /* 24C */
70         %MACRO SECTIONDATA (SECTION_NUM=);
71         PROC PRINT DATA = STUDYTIME;
72         WHERE SECTION = "0&SECTION_NUM";
73         TITLE "DATA FOR SECTION &SECTION_NUM";
74         RUN;
75         %MEND SECTIONDATA;
76
77         OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
87
```

d

/* 24D */

PROC OPTIONS OPTION = SYMBOLGEN;

RUN;

or use the following option codes.
OPTIONS MPRINT NOSYMBOLGEN;

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69         /* 24D */
70         PROC OPTIONS OPTION = SYMBOLGEN;
71         RUN;

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 NOSYMBOLGEN       Does not display the results of resolving macro variable references in the SAS log.
NOTE: PROCEDURE OPTIONS used (Total process time):
      real time           0.00 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              236.25k
      OS Memory           20896.00k
      Timestamp           04/18/2024 02:45:00 AM
      Step Count                        276  Switch Count  0
      Page Faults                       0
      Page Reclaims                     15
      Page Swaps                        0
      Voluntary Context Switches        0
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           0


72
73         OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
83
```

e

/* 24E */

```
%MACRO SECTIONDATA (SECTION_NUM=);
	PROC SQL NOPRINT;
		SELECT TIME_PER_UNIT
			INTO :AVG_TIME_PER_UNIT_SEC
			FROM STUDYTIME_STATS
			WHERE SECTION = "0&SECTION_NUM"
			AND _STAT_ = "MEAN";
	QUIT;

	%IF &AVG_TIME_PER_UNIT_SEC > 2 %THEN
		%LET FOOTNOTE = "Average study time was met for section
&SECTION_NUM";
	%ELSE
		%LET FOOTNOTE = = "Average study time was NOT met for section
&SECTION_NUM";

	PROC PRINT DATA = STUDYTIME;
		WHERE SECTION = "0&SECTION_NUM";
		TITLE "DATA FOR SECTION &SECTION_NUM";
		FOOTNOTE "&FOOTNOTE";
	RUN;
%MEND SECTIONDATA;
```

Try use %PUT to illustrate the result in the log
%put &AVG_TIME_PER_UNIT_SEC &AVG_TIME_PER_UNIT_SEC_ROUNDED; l

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69         /* 24E */
70         %MACRO SECTIONDATA (SECTION_NUM=);
71         PROC SQL NOPRINT;
72         SELECT TIME_PER_UNIT
73         INTO :AVG_TIME_PER_UNIT_SEC
74         FROM STUDYTIME_STATS
75         WHERE SECTION = "0&SECTION_NUM"
76         AND _STAT_ = "MEAN";
77         QUIT;
78
79         %IF &AVG_TIME_PER_UNIT_SEC > 2 %THEN
80         %LET FOOTNOTE = "Average study time was met for section &SECTION_NUM";
81         %ELSE
82         %LET FOOTNOTE = = "Average study time was NOT met for section &SECTION_NUM";
83
84         PROC PRINT DATA = STUDYTIME;
85         WHERE SECTION = "0&SECTION_NUM";
86         TITLE "DATA FOR SECTION &SECTION_NUM";
87         FOOTNOTE "&FOOTNOTE";
88         RUN;
89         %MEND SECTIONDATA;
90
91         OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
101
```

f

```
/* 24F */
%MACRO SECTIONDATA (SECTION_NUM=);
        PROC SQL NOPRINT;
                SELECT TIME_PER_UNIT
                        INTO :AVG_TIME_PER_UNIT_SEC
                        FROM STUDYTIME_STATS
                        WHERE SECTION = "0&SECTION_NUM"
                        AND _STAT_ = "MEAN";
        QUIT;

        %LET AVG_TIME_PER_UNIT_SEC_ROUNDED =
%SYSFUNC(ROUND(&AVG_TIME_PER_UNIT_SEC, .01));

        %IF &AVG_TIME_PER_UNIT_SEC > 2 %THEN
```

```
        %LET FOOTNOTE = "&AVG_TIME_PER_UNIT_SEC_ROUNDED HRS:
average study time was met for section &SECTION_NUM";
    %ELSE
        %LET FOOTNOTE = "&AVG_TIME_PER_UNIT_SEC_ROUNDED HRS:
average study time was NOT met for section &SECTION_NUM";

    PROC PRINT DATA = STUDYTIME;
        WHERE SECTION = "0&SECTION_NUM";
        TITLE "DATA FOR SECTION &SECTION_NUM";
        FOOTNOTE "&FOOTNOTE";
    RUN;
%MEND SECTIONDATA;
```

If you replace "&AVG..." with " &AVG..." you can eliminate the error in the log

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69         /* 24F */
70         %MACRO SECTIONDATA (SECTION_NUM=);
71         PROC SQL NOPRINT;
72         SELECT TIME_PER_UNIT
73         INTO :AVG_TIME_PER_UNIT_SEC
74         FROM STUDYTIME_STATS
75         WHERE SECTION = "0&SECTION_NUM"
76         AND _STAT_ = "MEAN";
77         QUIT;
78
79         %LET AVG_TIME_PER_UNIT_SEC_ROUNDED = %SYSFUNC(ROUND(&AVG_TIME_PER_UNIT_SEC, .01));
80
81         %IF &AVG_TIME_PER_UNIT_SEC > 2 %THEN
82         %LET FOOTNOTE = "&AVG_TIME_PER_UNIT_SEC_ROUNDED HRS: average study time was met for section &SECTION_NUM";
83         %ELSE
84         %LET FOOTNOTE = "&AVG_TIME_PER_UNIT_SEC_ROUNDED HRS: average study time was NOT met for section &SECTION_NUM";
85
86         PROC PRINT DATA = STUDYTIME;
87         WHERE SECTION = "0&SECTION_NUM";
88         TITLE "DATA FOR SECTION &SECTION_NUM";
89         FOOTNOTE "&FOOTNOTE";
90         RUN;
91         %MEND SECTIONDATA;
92
93
94         OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
104
```

g

```
/* 24G */
%SECTIONDATA(SECTION_NUM = 1);
%SECTIONDATA(SECTION_NUM = 2);
```

```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69         /* 24G */
70         %SECTIONDATA(SECTION_NUM = 1);
NOTE: PROCEDURE SQL used (Total process time):
      real time           0.00 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              5486.68k
      OS Memory           26536.00k
      Timestamp           04/18/2024 02:47:25 AM
      Step Count                        301  Switch Count  0
      Page Faults                       0
      Page Reclaims                     83
      Page Swaps                        0
      Voluntary Context Switches        0
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           0


NOTE: Line generated by the macro variable "FOOTNOTE".
70          ""2.57 HRS: average study time was met for section 1"
            ---
            49
```

If you replace "&AVG..." with " &AVG..." you can eliminate the error in the log

```
NOTE: There were 58 observations read from the data set WORK.STUDYTIME.
      WHERE SECTION='01';
NOTE: PROCEDURE PRINT used (Total process time):
      real time           0.05 seconds
      user cpu time       0.05 seconds
      system cpu time     0.00 seconds
      memory              1775.21k
      OS Memory           21672.00k
      Timestamp           04/18/2024 02:47:25 AM
      Step Count                        302  Switch Count  3
      Page Faults                       0
      Page Reclaims                     164
      Page Swaps                        0
      Voluntary Context Switches        15
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           32


NOTE 49-169: The meaning of an identifier after a quoted string might change in a future SAS release.  Inserting white space
             between a quoted string and the succeeding identifier is recommended.
71         %SECTIONDATA(SECTION_NUM = 2);
NOTE: PROCEDURE SQL used (Total process time):
      real time           0.00 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              5486.96k
      OS Memory           26536.00k
      Timestamp           04/18/2024 02:47:25 AM
      Step Count                        303  Switch Count  0
      Page Faults                       0
      Page Reclaims                     56
      Page Swaps                        0
      Voluntary Context Switches        0
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           0


NOTE: Line generated by the macro variable "FOOTNOTE".
71          ""1.98 HRS: average study time was NOT met for section 2"

            49
NOTE: There were 64 observations read from the data set WORK.STUDYTIME.
      WHERE SECTION='02';
NOTE: PROCEDURE PRINT used (Total process time):
      real time           0.05 seconds
      user cpu time       0.06 seconds
      system cpu time     0.00 seconds
      memory              970.81k
      OS Memory           21928.00k
      Timestamp           04/18/2024 02:47:25 AM
      Step Count                        304  Switch Count  3
      Page Faults                       0
      Page Reclaims                     117
      Page Swaps                        0
      Voluntary Context Switches        16
      Involuntary Context Switches      0
      Block Input Operations            0
      Block Output Operations           56


NOTE 49-169: The meaning of an identifier after a quoted string might change in a future SAS release.  Inserting white space
             between a quoted string and the succeeding identifier is recommended.
72
73         OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
83
```

DATA FOR SECTION 1

Obs	ID	FInitial	LastName	Section	Units	Time	TIME_PER_UNIT
1	1063	T	Howard	01	9	26	2.88889
2	1071	J	Tucker	01	14	50	3.57143
3	1189	J	Harper	01	14	30	2.14286
4	1239	M	Wagner	01	9	32	3.55556
5	1267	D	Lane	01	12	37	3.08333
6	1411	R	Morris	01	10	22	2.20000
7	1424	M	Baker	01	14	38	2.71429
8	1520	C	Torres	01	9	24	2.66667
9	1755	P	Martinez	01	12	19	1.58333
10	1786	A	Olson	01	19	67	3.52632
11	1796	M	Nichols	01	15	34	2.26667
12	1799	G	Henderson	01	18	63	3.50000
13	1850	J	Torres	01	18	72	4.00000
14	1855	T	Jones	01	16	32	2.00000
15	1957	J	Lee	01	18	46	2.55556
16	2004	D	Miller	01	18	37	2.05556
17	2013	K	Wallace	01	13	47	3.61538
18	2109	M	Hayes	01	14	50	3.57143
19	2146	M	Black	01	13	47	3.61538
20	2170	T	Marshall	01	17	35	2.05882
21	2238	A	Owens	01	16	34	2.12500
22	2251	D	Sanders	01	19	64	3.36842
23	2318	G	Hamilton	01	19	42	2.21053
24	2321	J	Jones	01	18	29	1.61111
25	2328	S	Owens	01	16	53	3.31250
26	2383	P	Walker	01	9	44	4.88889
27	2385	S	Berry	01	14	35	2.50000
28	2436	M	Carter	01	19	39	2.05263
29	2444	D	Grant	01	11	33	3.00000
30	2501	T	Moore	01	14	30	2.14286
31	2504	E	Kennedy	01	15	32	2.13333
32	2507	T	Sullivan	01	10	39	3.90000
33	2521	T	Shaw	01	12	15	1.25000
34	2570	S	Grant	01	10	23	2.30000
35	2579	M	Davis	01	15	35	2.33333
36	2619	J	Griffin	01	10	20	2.00000

25	2328	S	Owens	01	16	53	3.31250
26	2383	P	Walker	01	9	44	4.88889
27	2385	S	Berry	01	14	35	2.50000
28	2436	M	Carter	01	19	39	2.05263
29	2444	D	Grant	01	11	33	3.00000
30	2501	T	Moore	01	14	30	2.14286
31	2504	E	Kennedy	01	15	32	2.13333
32	2507	T	Sullivan	01	10	39	3.90000
33	2521	T	Shaw	01	12	15	1.25000
34	2570	S	Grant	01	10	23	2.30000
35	2579	M	Davis	01	15	35	2.33333
36	2619	J	Griffin	01	10	20	2.00000
37	2639	D	Alexander	01	13	28	2.15385
38	2696	J	Collins	01	16	34	2.12500
39	2728	G	Freeman	01	17	53	3.11765
40	2890	T	Palmer	01	10	41	4.10000
41	2902	J	Hill	01	15	0	0.00000
42	2924	S	Simmons	01	16	32	2.00000
43	2943	S	Owens	01	18	0	0.00000
44	3002	S	Bailey	01	13	29	2.23077
45	3017	C	Morris	01	17	35	2.05882
46	3084	S	Brown	01	10	31	3.10000
47	3101	C	Sullivan	01	12	38	3.16667
48	3138	M	Washington	01	9	10	1.11111
49	3157	A	Mcdonald	01	15	53	3.53333
50	3175	J	Stephens	01	11	41	3.72727
51	3185	E	Flores	01	12	15	1.25000
52	3196	A	Hughes	01	12	27	2.25000
53	3274	K	Tucker	01	15	35	2.33333
54	3340	J	Edwards	01	9	26	2.88889
55	3382	T	Davis	01	14	39	2.78571
56	3407	K	Scott	01	16	16	1.00000
57	3480	J	Martin	01	10	41	4.10000
58	3491	J	Ellis	01	11	22	2.00000

'2.57 HRS: average study time was met for section 1'

DATA FOR SECTION 2

DATA FOR SECTION 2

Obs	ID	FInitial	LastName	Section	Units	Time	TIME_PER_UNIT
59	1005	J	Bryant	02	10	29	2.90000
60	1026	E	Fisher	02	18	18	1.00000
61	1045	R	Turner	02	19	56	2.94737
62	1082	T	Morgan	02	12	21	1.75000
63	1096	T	Harper	02	19	54	2.84211
64	1108	A	Brown	02	11	31	2.81818
65	1120	J	Baker	02	16	45	2.81250
66	1181	L	Ruiz	02	12	21	1.75000
67	1282	S	Torres	02	10	20	2.00000
68	1328	D	Wells	02	19	18	0.94737
69	1352	K	Mitchell	02	16	14	0.87500
70	1388	C	Walker	02	16	30	1.87500
71	1413	C	Payne	02	14	28	2.00000
72	1443	S	Simpson	02	9	26	2.88889
73	1510	T	Brooks	02	14	0	0.00000
74	1601	G	Adams	02	15	0	0.00000
75	1613	D	Bryant	02	9	6	0.66667
76	1653	L	Thompson	02	19	36	1.89474
77	1659	J	Perry	02	17	14	0.82353
78	1704	A	Dunn	02	15	12	0.80000
79	1727	J	Ramirez	02	10	7	0.70000
80	1756	J	Patterson	02	14	39	2.78571
81	1757	J	Reyes	02	12	47	3.91667
82	1772	A	Turner	02	11	41	3.72727
83	1776	M	Cooper	02	10	17	1.70000
84	1798	K	Mason	02	9	8	0.88889
85	1808	A	Alexander	02	13	25	1.92308
86	1835	C	Murray	02	12	24	2.00000
87	1852	M	Sanders	02	15	12	0.80000
88	1865	T	Wagner	02	16	15	0.93750
89	1894	M	Simmons	02	10	30	3.00000
90	1901	D	Hughes	02	15	59	3.93333
91	1942	K	Carter	02	16	5	0.31250
92	1979	A	Carter	02	13	26	2.00000
93	2006	E	Wilson	02	17	49	2.88235
94	2038	S	Stewart	02	16	47	2.93750

87	1852	M	Sanders	02	15	12	0.80000
88	1865	T	Wagner	02	16	15	0.93750
89	1894	M	Simmons	02	10	30	3.00000
90	1901	D	Hughes	02	15	59	3.93333
91	1942	K	Carter	02	16	5	0.31250
92	1979	A	Carter	02	13	26	2.00000
93	2006	E	Wilson	02	17	49	2.88235
94	2038	S	Stewart	02	16	47	2.93750
95	2149	R	Green	02	11	30	2.72727
96	2153	J	Porter	02	13	24	1.84615
97	2200	M	Warren	02	19	57	3.00000
98	2260	T	Ruiz	02	12	33	2.75000
99	2269	K	Robertson	02	13	37	2.84615
100	2316	S	Olson	02	16	29	1.81250
101	2358	T	Alexander	02	10	17	1.70000
102	2457	J	Williams	02	17	16	0.94118
103	2609	W	Adams	02	15	60	4.00000
104	2632	T	Knight	02	10	27	2.70000
105	2641	M	Martin	02	14	28	2.00000
106	2733	B	Evans	02	13	13	1.00000
107	2740	K	Reed	02	15	13	0.86667
108	2758	L	James	02	18	33	1.83333
109	2762	A	Willis	02	11	31	2.81818
110	2844	R	Hart	02	10	8	0.80000
111	2883	D	Cole	02	13	38	2.92308
112	3015	K	Gonzales	02	9	18	2.00000
113	3037	A	Graham	02	15	0	0.00000
114	3100	K	Henry	02	13	37	2.84615
115	3108	P	Reynolds	02	19	56	2.94737
116	3118	A	West	02	19	56	2.94737
117	3121	R	Gardner	02	16	16	1.00000
118	3202	T	Grant	02	13	38	2.92308
119	3292	J	Lewis	02	12	24	2.00000
120	3337	S	Cole	02	17	0	0.00000
121	3438	J	Johnson	02	10	27	2.70000
122	3478	R	Rice	02	16	46	2.87500

'1.98 HRS: average study time was NOT met for section 2'