Exercise 1

Consider the DATA step below.

```
data us;
    set orion.sales;
    where Country='US';
run;
```

L5_E1.sas

Exercise 1

Considering this DATA step, which statement is true?

a. It reads a temporary data set and creates a permanent data set.

b. It reads a permanent data set and creates a temporary data set.

c. It contains a syntax error and does not execute.

d. It does not execute because you cannot work with permanent and temporary data sets in the same step.

Exercise 1 solution

- Considering this DATA step, which statement is true?

    a. It reads a temporary data set and creates a permanent data set.

    b. It reads a permanent data set and creates a temporary data set.

    c. It contains a syntax error and does not execute.

    d. It does not execute because you cannot work with permanent and temporary data sets in the same step.

```
data us;               /* Create a temporary data set */
    set orion.sales;   /* Read a permanent data set */
    where Country='US';
run;
```

Exercise 2

What are the values of **n1** and **n2** given the following variables and values?

x	y	z
.	4	10

a.   `n1=y+z/2;`

_____

b.   `n2=x+z/2;`

Exercise 2 solution

What are the values of **n1** and **n2** given the following variables and values?

x	y	z
.	4	10

a. `n1=y+z/2;` ➡️ 4+10/2 ➡️ 4+5 ➡️ ⑨

  `n1=(y+z)/2;` ➡️ 14/2 ➡️ 7

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b. `n2=x+z/2;` ➡️ .+10/2 ➡️ .+5 ➡️ ⦾

Exercise 3

Open and submit **L5_E3.sas**. Is the output data set created successfully?

```
data work.usemps;
    set orion.sales;
    Bonus=Salary*.10;
    where Country='US' and Bonus>=3000;
run;
```

L5_E3.sas

Exercise 3 solution

Open and submit **L5_E3.sas**. Is the output data set created successfully?

```
260  data work.usemps;
261     set orion.sales;
262     Bonus=Salary*.10;
263     where Country='US' and Bonus>=3000;
ERROR: Variable Bonus is not on file ORION.SALES.
264  run;

NOTE: The SAS System stopped processing this step because of
errors.
WARNING: The data set WORK.USEMPS may be incomplete.  When
this step was stopped there were 0 observations and 10
variables.
```

No. Bonus cannot be used in a WHERE statement because it is not in the input data set. It is a new variable that is created in this DATA step.

Exercise 4

File **L5_E4.sas** contains two versions of the previous program. Submit both programs and compare the output and number of observations read. What do you notice about the results?

```
data work.auemps;
   set orion.sales;
   Bonus=Salary*.10;
   if Country='AU'  and Bonus>=3000;
run;
```