✅ **Congratulations! You passed!**

Grade	Latest Submission	To pass 80% or	
received 100%	Grade 100%	higher	**Go to next item**

1. A data analyst is assigning a variable to a value in their company's sales dataset for 2020. Which variable name uses the correct syntax?

   ○ `2020_sales`

   ○ `-sales-2020`

   ○ `_2020sales`

   ◉ `sales_2020`

> ✓ **Correct**
> The variable with the correct syntax is `sales_2020`. A variable name in R may contain numbers and underscores as well but not as the first character.

`1 / 1 point`

2. You want to create a vector with the values 21, 12, 39, in that exact order. After specifying the variable, what R code chunk allows you to create the vector?

   ○ `c(39, 12, 21)`

   ◉ `c(21, 12, 39)`

   ○ `v(21, 12, 39)`

   ○ `v(39, 12, 21)`

> ✓ **Correct**
> The code chunk `c(21, 12, 39)` allows you to create a vector with the values 21, 12, 39. A vector is a group of data elements of the same type stored in a sequence in R. You can create a vector by putting the values you want inside the parentheses of the combine function.

`1 / 1 point`

3. An analyst comes across dates listed as strings in a dataset, for example `December 10th, 2020`. To convert the strings to a date/time data type, which function should the analyst use?

   ○ lubridate()

   ○ now()

   ◉ mdy()

   ○ datetime()

> ✓ **Correct**
> To convert the strings to date/time data types, the analyst should use the function mdy(). The mdy() function and other variations of the ymd() function convert string dates and times into date/time data types that are compatible with R.

`1 / 1 point`

4. A data analyst inputs the following code in RStudio:
`sales_1 <- (3500.00 * 12)`
Which of the following types of operators does the analyst use in the code? Select all that apply.

   ☐ Logical

   ☐ Relational

   ☑ Arithmetic

> ✓ **Correct**
> In the code `sales_1 <- (3500.00 * 12)`, the analyst uses an assignment (<-) and an arithmetic (*) operator. The assignment operator assigns the calculated value in parentheses to the variable sales_1 and the arithmetic operator multiplies the values in parentheses to complete the calculation.

   ☑ Assignment

> ✓ **Correct**
> In the code `sales_1 <- (3500.00 * 12)`, the analyst uses an assignment (<-) and an arithmetic (*) operator. The assignment operator assigns the calculated value in parentheses to the variable sales_1 and the arithmetic operator multiplies the values in parentheses to complete the calculation.

`1 / 1 point`

5. Which of the following files in R have names that follow widely accepted naming convention rules? Select all that apply.

   ☐ title*123.R

   ☑ patient_data.R

> ✓ **Correct**
> The files with names that follow widely accepted naming convention rules are patient_data.R and patient_details_1.R. These file names end in .R and use only lowercase letters, numbers, and underscores. They are also clear, concise, and meaningful.

   ☑ patient_details_1.R

> ✓ **Correct**
> The files with names that follow widely accepted naming convention rules are patient_data.R and patient_details_1.R. These file names end in .R and use only lowercase letters, numbers, and underscores. They are also clear, concise, and meaningful.

   ☐ p1+infoonpatients.R

`1 / 1 point`

6. Which of the following are included in R packages? Select all that apply.

☑ Sample datasets

✓ **Correct**
R packages include reusable R functions, sample datasets, and tests for checking your code. R packages also include documentation about how to use the included functions.

☑ Tests for checking your code

✓ **Correct**
R packages include reusable R functions, sample datasets, and tests for checking your code. R packages also include documentation about how to use the included functions.

☑ Reusable R functions

✓ **Correct**
R packages include reusable R functions, sample datasets, and tests for checking your code. R packages also include documentation about how to use the included functions.

☐ Naming conventions for R variable names

7. What is the relationship between RStudio and CRAN?

○ CRAN creates visualizations based on an analyst's programming in RStudio.

○ RStudio and CRAN are both environments where data analysts can program using R code.

○ CRAN contains all of the data that RStudio users need for analysis.

◉ RStudio installs packages from CRAN that are not in Base R.

✓ **Correct**
RStudio installs packages from CRAN that are not in Base R. CRAN is an online archive with R packages and other R-related resources that makes sure the resources are authentic and valid.

8. A data analyst is reviewing some code and finds the following code chunk:

```
mtcars %>%
    filter(carb > 1) %>%
    group_by(cyl) %>%
```

What is this code chunk an example of?

◉ Pipe

○ Vector

○ Data frame

○ Nested function

✓ **Correct**
The code chunk is an example of a pipe. A pipe is a tool for expressing a sequence of multiple operations in R (in this case filtering and grouping). The operator for a pipe is %>%.