edX

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Section 1 Assessment
Question 1

2/2 points (graded)

To find the solutions to an equation of the format $ax^2 + bx + c$, use the quadratic equation:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}.$$

What are the two solutions to $2x^2 - x - 4 = 0$? Use the quadratic equation. (Report the greater of the two solutions first, using 3 significant digits for both solutions)

| 1.686 | ✔ |

1.686

| -1.186 | ✔ |

-1.186

| Submit | You have used 4 of 10 attempts |

✔ Correct (2/2 points)

Question 2

1/1 point (graded)

Compute log base 4 of 1024. Use the `help` function to learn how to use arguments to change the base of the `log` function.

Submit your code below.

| log(1024, 4) | ✔ |

| Submit | You have used 2 of 10 attempts |

✔ Correct (1/1 point)

Install the **dslabs** package if you have not done so:

```
install.packages("dslabs")

Note that any time you get an error that a package is not found, try installing
that package.
```

The `movielens` dataset in the **dslabs** package includes data on a variety of movies and their rating by a particular user. Load the `movielens` dataset:

```
library(dslabs)
data(movielens)
```

Begin your exploration of this dataset by looking at the structure of the dataset and variable types.

Question 3a

1/1 point (graded)
How many rows are in the dataset?

100004   ✔

100004

Submit   You have used 1 of 10 attempts

✔ Correct (1/1 point)

Question 3b

1/1 point (graded)
How many different variables are in the dataset?

7   ✔

7

Submit   You have used 1 of 10 attempts

✔ Correct (1/1 point)

Question 3c

1/1 point (graded)
What is the variable type of `title` ?

○ It is a text (txt) variable

○ It is a chronological (chr) variable

○ It is a string (str) variable

○ It is a numeric (num) variable

○ It is an integer (int) variable

○ It is a factor (Factor) variable

● It is a character (chr) variable ✔

Submit   You have used 1 of 2 attempts

✔ Correct (1/1 point)

Question 3d

1/1 point (graded)
What is the variable type of `genres` ?

○ It is a text (txt) variable

○ It is a chronological (chr) variable

○ It is a string (str) variable

○ It is a numeric (num) variable

○ It is an integer (int) variable

⦿ It is a factor (Factor) variable ✔

○ It is a character (chr) variable

| Submit | You have used 1 of 2 attempts |

✔ Correct (1/1 point)

Question 4

1/1 point (graded)
We already know we can use the `levels()` function to determine the levels of a factor. A different function, `nlevels()`, may be used to determine the number of levels of a factor.

Use this function to determine how many levels are in the factor `genres` in the `movielens` data frame.

901 ✔

901

| Submit | You have used 1 of 10 attempts |

✔ Correct (1/1 point)