

Basic Ruby Exercises

Do all of the following exercises in irb.

1. Numbers

- a) What is your age in seconds (convert from years)?
- b) How many minutes are there in December?
- c) If my pet tortoise is 3.79 billion (1 billion == 10^9) milliseconds old, how much is that in years?

2. Strings

- a. Use the 'puts' command to experiment with strings:
 - a.i. puts 'Hello World!'
 - a.ii. puts 'I need more' + 'coffee'
 - a.iii. puts 'Cake ' * 5
 - a.iv. puts 'Cake' * 'Pie'
- b. Single and double quotes, what's the difference? Try the following:
 - b.i. puts "You're great"
 - b.ii. puts 'You\'re great!'
 - b.iii. Why do we need the backslash in the previous question?
 - b.iv. puts "Every programming book has a \"Hello World\" example."
 - b.v. puts 'Every programming book has a "Hello World" example.'

Notice how we don't need to escape double quotes when they are surrounded by single quotes?

What happens if you try and escape the double quotes with backslashes in the second example?

- c. Experiment with other escape sequences for a few minutes. Try using both single and double quotes.

3. Variables, Assignment, and Conversions

- a. Try the following:

```
name = "Bob"
puts "Hello " + name + "!"
puts "Hello #{name}!"
```

Why do we need the `#{}` in the second puts command?

```
age = 24
puts "You are " + age.to_s + " years old"
```

Now try the same without the `.to_s` part. What happens?

- b. Convert "12" to an integer
- c. Convert 56 to a string
- d. Convert "99.999" to a float
- e. Use the `#class` method to find out what classes the following belong to:
 - e.i. 56
 - e.ii. 12345678901234567890
 - e.iii. "Hello World!"
 - e.iv. false
 - e.v. true
 - e.vi. 999.99
- f. Repeat 1.a, but this time put both your age and the result in variables.
- g. Use the online Ruby documentation (<http://www.ruby-doc.org/core/>) to find out how to do the following:
 - g.i. Strip the surrounding spaces from " Coffee! "
 - g.ii. Round 56.43 to the closest integer
 - g.iii. Convert "Hello World!" to all capitals.