Question 1:
What is the return value of Ruby's method visibility keywords?
private, public, protected
Answer 1:

Ruby’s method visibility keywords can be used as r-values.
Question 2:

Given a button method that takes an argument and a block, which of these are valid Ruby?

button "string" { |n| n }
button "string" do |n| n end
button ["string"] { |n| n }
button ["string"] do |n| n end
Answer 2:

All except:

button "string" { |n| n }
Bonus Question:

How could this line be fixed?

button "string" { |n| n }
Bonus Question:

How could this line be fixed?

```ruby
button("string") { |n| n }
```

Answer: Add parentheses around the argument.
Question 3:
What is the result of this line:
a Hash with a String key,
a Hash with a Symbol key,
or a SyntaxError?

{"key": "What happens?"}
Answer 3:
a Hash with a Symbol key*

*In Ruby 2.2 and later. In earlier versions, it raises a SyntaxError.
Question 4: What is the value of each argument?

def foo(*w, a: 7, **t)
  puts "w: #{w}, a: #{a}, t: #{t}"
end

foo({a: 1, b: 2, "c" => 3, d: 4})
Answer 4:

\[
\begin{align*}
\text{w: } & \begin{bmatrix}
\{ "c" => 3 \}
\end{bmatrix} \\
\text{a: } & 1 \\
\text{t: } & \{ :b => 2, :d => 4 \}
\end{align*}
\]
**Bonus Question:**

What happens if you add a positional argument to the end?

def foo(*w, a: 7, **t)
    puts "w: #{w}, a: #{a}, t: #{t}"
end

foo({a: 1, b: 2, "c" => 3, d: 4}, 5)
Bonus Question:
What happens if you add a positional argument to the end?

w: [{:a=>1, :b=>2, "c"=>3, :d=>4}, 5]
a: 7
t: {}
Question 5:
When you inspect `Object.new`, Ruby outputs something like:

```
<Object: 0x00c1a551f1a551f1able>
```

What are the properties and significance of this hex number?
Answer 5:

1. It’s the object’s address in memory.
2. It’s always even.
3. It’s double the object’s object_id.
```c
VALUE
rb_obj_id(VALUE obj)
{
  /*
   * 32-bit VALUE space
   * MSB  ------------------------------- LSB
   * false 00000000000000000000000000000000
   * true   00000000000000000000000000000110
   * nil    00000000000000000000000000000100
   * undef  00000000000000000000000000000110
   * symbol ssssssssssssssssssssssssssssssssssssssss00001110
   * object o00000000000000000000000000000000
   * fixnum fffffffffffffffffffffffffffffff1
   */

  /*
   * object_id space
   * LSB
   * false 00000000000000000000000000000000
   * true   00000000000000000000000000000110
   * nil    00000000000000000000000000000100
   * undef  00000000000000000000000000000110
   * symbol 000SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS0
   * object o00000000000000000000000000000000
   * fixnum fffffffffffffffffffffffffffffff1
   */
```
Thanks for playing!

Follow @sferik on Twitter for more Ruby trivia and practica.