Ruby Basics:

Variable Scope

1) local: begin with a lowercase letter
2) instance: begin with @
3) class: begin with @@
4) global: begin with $

Variables in Classes: Intance Variables
Shared accross all methods in an instance

```ruby
class Square

    def initialize
        @length = 10
    end

    def printout
        puts "Length = #{@length}."
    end
end
```

Ruby Basics:

Variables in Classes: Local Variables
Accessed only within the methods that define them

```ruby
class Square

    def initialize
        @length = 10
    end

    def printout
        length = @length * 2
        puts "Length = #{length}."
    end
end
```

Ruby Basics:

Variables in Classes: Class Variables
    Accessed by all instances and methods.

```ruby
class Square
    @@number_of_squares = 0
    def initialize
        @length = 10
        @@number_of_squares += 1
    end

    def printout
        puts "Length = #{@length}."
        puts "Total = #{@@number_of_squares}."
    end
end
```

Ruby Basics:

Global Variables: Can be accessed anywhere.

```ruby
$settings = {:border_width => 1}

class Square
    def initialize length = 10
        @length = length
        @border_width = $settings[:border_width]
    end
end
```