



Regular Expressions

Pattern Matching

Pattern Matching

- Find a pattern in a string
 - Is there a credit card number?
 - Is this phone number or email valid?
 - Is there a vowel at the beginning?

Patterns in Shapes



One Character



- Is there a red square?

shapes =~ /  /

One Character



- Is there a red square?

shapes =~ /  /

Consecutive Characters



- Is there a red square followed by a blue triangle followed by a green circle?

shapes =~ /    /

Consecutive Characters



- Is there a red square followed by a blue triangle followed by a green circle?

shapes =~ /    /

More Specialized Patterns

- Any of these?
- Anything other than these?
- Is this at the beginning of the string?
- Are there three of these consecutively?
- Are there zero or more of these?

Any of These: []



- Is there a blue square or a green circle?

shapes =~ /[ ]/

Any of These: []



- Is there a blue square or a green circle?

shapes =~ /[ ]/

Anything Other than These: [^]



- Is there anything that is not a blue triangle or a green circle?

shapes =~ /^[^  ]/

Anything Other than These: [^]



- Is there anything that is not a blue triangle or a green circle?

shapes =~ /^[^  ]/

At Start of String: \A



- Is there a red square at the start of the string?

shapes =~ /\A  /

At Start of String: \A



- Is there a red square at the start of the string?

shapes =~ /\A /

Consecutively n Times: { }



- Is there either a circle or triangle three times in a row?

shapes =~ /[○ △] {3} /

Consecutively n Times: { }



- Is there either a circle or triangle three times in a row?

shapes =~ /[

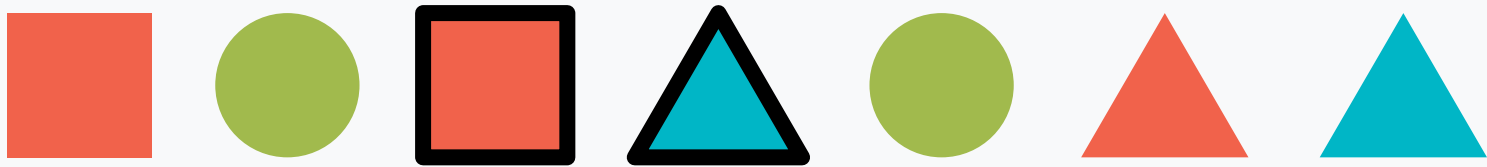
Zero or More: *



- Is there a red square followed by an optional series of squares followed by a triangle?

shapes =~ /  *  /

Zero or More: *



- Is there a red square followed by an optional series of squares followed by a triangle?

shapes =~ /  *  /

Challenge



- Is there a square, followed an optional blue triangle and green circle, followed by an optional square, followed by two triangles, followed by the end of the string?

Challenge



shapes = ~ /  ( ) ?  ?  { 2 } \ z /

Challenge



shapes = ~ /  ( ) ?  ?  { 2 } \ z /

Pig Latin Challenge

- How robust is your pig latinizer?
 - Punctuation?
 - good! => oodgay!
 - Quotation marks?
 - “something said” => “omethingsay aidsay”
 - Contractions?
 - wouldn’t => ouldwayn’t

Pig Latin Challenge

"That shouldn't work," I'd said.

"Atthay ouldshayn't orkway," I'd aidsay.