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# **Review for Quiz 2**

**Take out any notes  
you have!**

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# Quiz Topics

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Abstraction

Binary

Boolean Logic

Functions

Current events

Blow to Bits

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# Review Game!

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Divide into 4 teams  
(2 per table)

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# Review Game!

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Each team will come up with an answer as a team and **write it down.**

Have someone raise their hand when your team has an answer.

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# Abstraction

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Give a definition of  
Abstraction

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# Abstraction

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How is Binary related to  
Abstraction?

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# Abstraction

---

Name the technique that lets  
us abstract details in  
programming

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# Abstraction

---

Give an example of something in the real world that's an Abstraction.

Explain why.

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# Binary

---

What is does base 10 and  
base 2 mean?

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# Binary

---

Convert this number to base 10

11101001

---

# Binary

---

Convert this number to base 10

$$11101001 = 233$$

---

# Binary

---

Convert these numbers to base 10

10111

1100110010

11101100

---

# Binary

---

Convert these numbers to base 10

$$10111 = 23$$

$$1100110010 = 818$$

$$11101100 = 236$$

---

# Binary

---

Convert this number to base 2

86

---

# Binary

---

Convert this number to base 2

$$86 = 1010110$$

# Binary

---

Convert these numbers to base 2

93

61

234

---



# Binary

---

Convert these numbers to base 2

$$93 = 1011101$$

$$61 = 111101$$

$$234 = 11101010$$

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# Binary

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How is binary related to abstraction?

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# Boolean Logic

---

Evaluate this expression

(True and not False) or  
not (True or False)

---

# Boolean Logic

---

Evaluate this expression

True

(True and not False) or  
not (True or False)

---

# Boolean Logic

---

Evaluate this expression

(False and True) and  
not ((True or True) or (True and False))

---

# Boolean Logic

---

Evaluate this expression

False

(False and True) and  
not ((True or True) or (True and False))

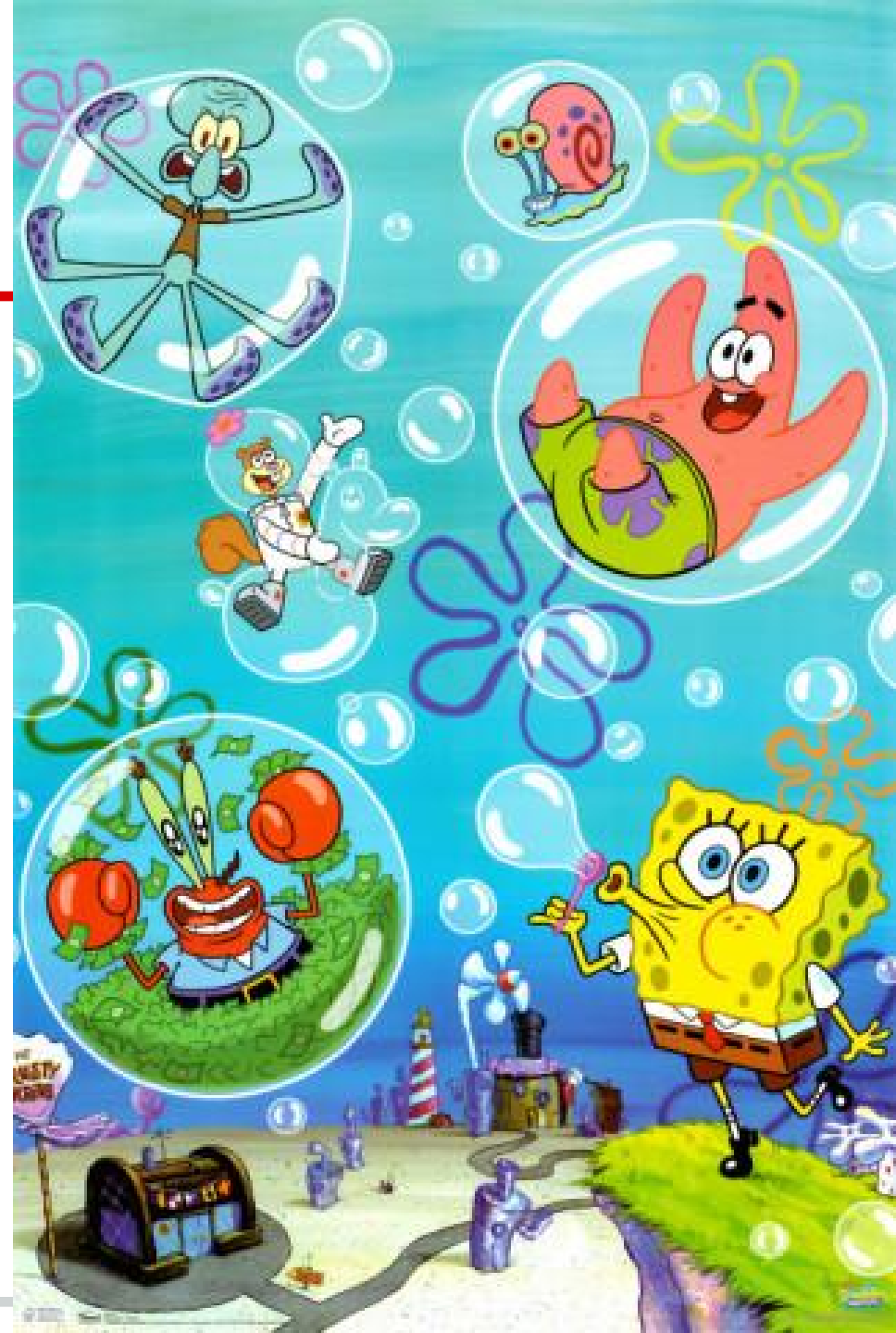
---

# Boolean Logic

---

Evaluate this  
expression

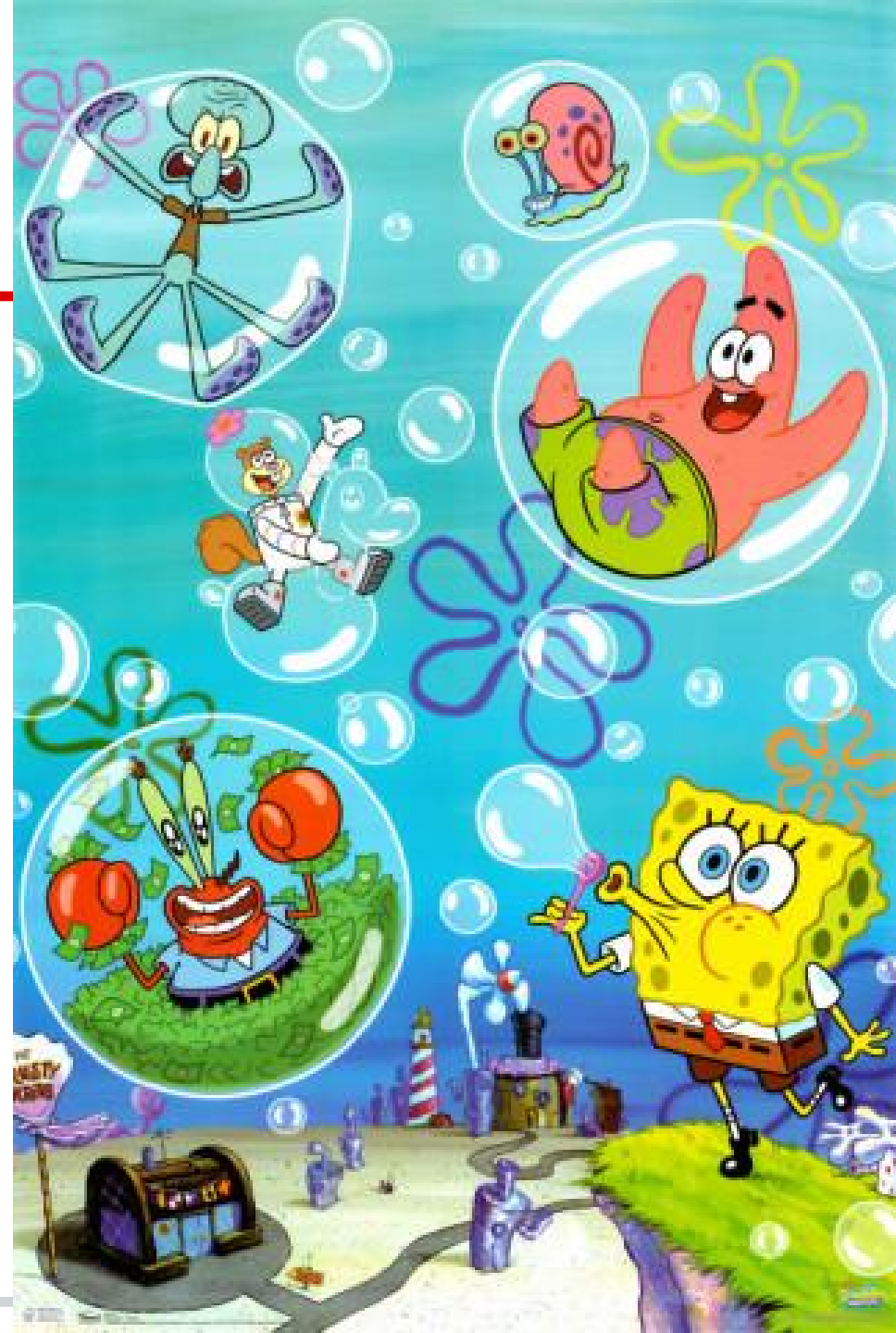
Number of animals  
in bubbles  $> 3$



# Boolean Logic

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(Snail is blowing a bubble) OR (Snail is inside a bubble)

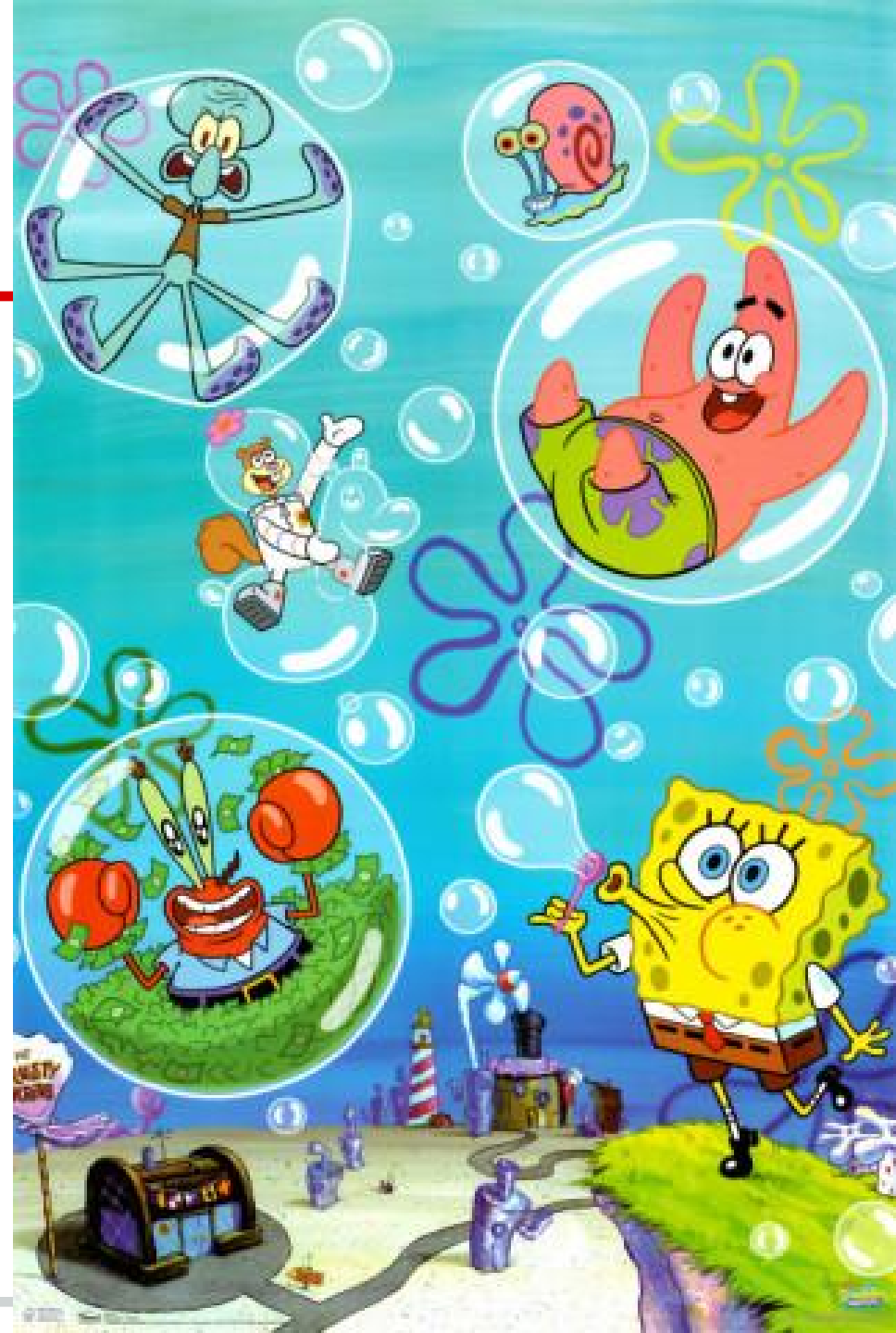




# Boolean Logic

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(NOT (Starfish has shoes)) AND (SpongeBob has shoes)



# Functions

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What is a function?

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# Functions

---

Why do we use functions?

---

# Functions

---

What are the three types of functions?

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# Functions

---

After using a **reporter function**, has anything in the program changed?

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# Functions

---

After using a **command function**, has anything in the program changed?

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# Functions

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Where in our script do we  
most commonly use  
**predicate functions?**

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# Command, Reporter, or Predicate?

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max stage x



report 240



max stage y



report 180



min stage x



report  - max stage x



min stage y



report  - max stage y



# Command, Reporter, or Predicate?

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next costume

---

# Command, Reporter, or Predicate?

---



# Command, Reporter, or Predicate?

---

costume #

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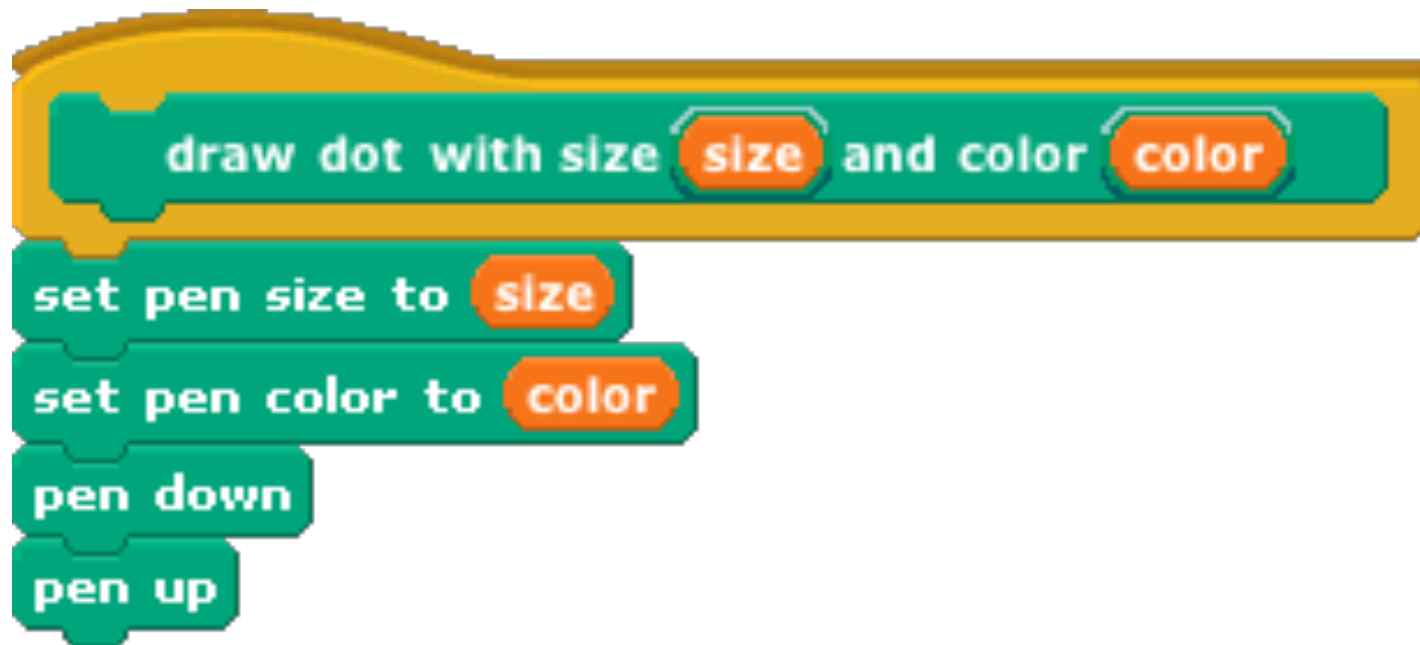
# Command, Reporter, or Predicate?

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# Command, Reporter, or Predicate?

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# Command, Reporter, or Predicate?

---



# Current events

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Describe one study from the article “Why Are There Still So Few Women in Science” that suggests interest, ability and success in science is dependant on culture.

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# Blown to Bits

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In a search engine, what is an Index?

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## Blown to Bits

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What does Google's PageRank use to determine how important a page is?

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# Resources to review on your own

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Function types lesson

Binary Worksheet

Blown to Bits #2 and #3

Latest Current Events Reading

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**Quiz tomorrow!**

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