Programming Paradigms

Question 4: Draw lines to match the four programming paradigms with their descriptions.

- a) functional
- b) imperative
- c) object-oriented
- d) declarative

- 1) answer a question via search for a solution
- construct instances from classes and send messages between them
- 3) follow a list of instructions one by one
- 4) evaluate an expression and use the result

Debugging

Question 8: We are trying to write a new predicate block that will return when a particular value is present within a list. Unfortunately, there is a bug.

```
list contains target
script variables found
                      index |
   found v to false
   index ▼ to 1
repeat length of list
                 item index of list = target
     found v to
 change index v by 1
report found
```

a) Give an example of values of list and target for which this code works correctly, despite the bug.

Debugging Part 2

Question 8: We are trying to write a new predicate block that will return when a particular value is present within a list. Unfortunately, there is a bug.

```
list contains target
script variables found Index 4
   found ▼ to false
set index ▼ to 1
repeat length of list
 set found ▼ to
                item index of list = target
 change index by 1
report found
```

b) Describe what you would change so that the block will work correctly for all inputs.

Float like a Butterfly, String Like a Bee*

Block	Description	Word example	Sentence example
Length	Report the number of letters in a word / words in a sentence	Length Bears	Length Cal is fun
Unend	Remove the ends of a word / sentence.	Unend Bears	Unend CS10 is an awesome class!
Double	Double a word / sentence	BearsBears Double Bears	Cal is fun Cal is fun
RightDup	Duplicate the rightmost letter / word	RightDup Bears	Cal is fun fun
LeftTrim	Remove the first letter / word from the left	LeftTrim Bears	LeftTrim Cal is fun

(go bears and beat stanford) → dan

^{*}Ok I promise about the "no more puns" this time.