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1  -- Please write your guesses in some other file. The format doesn't really matter, as
long as it makes sense.
2
3 -----
4 -- Section 1:
5 -- Every time it says "display X", write what you think will be displayed. Please
guess even if it is unclear.
6 -- For example, given:
7
8 -- Example 0:
9 display 4.
10 display 5.
11
12 -- You might write as follows (the dashes are optional and unimportant):
13
14 -- Example 0:
15 -- 4
16 -- 5
17
18 -- Example 1
19 display "Hello World!".
20
21 -- Example 2 (assume the user enters the numbers 10 and 20)
22 display "Please enter two numbers to sum: ", and
23 read A as Int, and
24 display "+", and
25 read B as Int, and
26 display (join "= " and (A + B)).
27
28 -- Example 3:
29 display (the length of [1,2,3,4]).
30
31 -- Example 4:
32 A is the same length as B if:
33     the length of A = the length of B.
34
35 A is the same length as [], and
36 display A.
37
38 -- Example 5:
39 a List is a special list if:
40     the reverse of List is List.
41
42 A = [1,2,Y,Z], and
43 A is a special list, and
44 display Y, and
45 display Z.
46
47 -- Example 6:
48 N is a blah number if: there exists some integer with (N = 3 * _X).
49
50 N is a blah number, and
51 0 < N < 5, and
52 display N.
53
54 -- Example 7:
55 the xfactor of W and Z is: the square root of (W^2 + Z^2).
56
57 display (the xfactor of 3 and 4).
58
59 -- Example 8:
60 evaluating List gives Value where:
61     when List = Empty then: Value = 0.
62     when List = [X...Rest] then:
63         evaluating Rest gives ValueOfRest, and
64         Value = X + ValueOfRest.
65
66 evaluating [10,89,-10] gives X, and

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67 display X.
68
69
70
71 -----
72 -- Section 2:
73 -- Please answer the questions below with either "valid" or "invalid", and if it is
valid, what should be displayed.
74 -- This should be entirely based on your intuition. There is no right or wrong answer
to any of these (except Example 0 below).
75
76 -- For example, given:
77
78 -- Example 0:
79 display (1 + "hello").
80
81 -- Because adding a word to a number makes no sense, you would write:
82 -- Example 0: invalid
83
84 -- Example 1:
85 display (1 + 1.5).
86
87 -- Example 2:
88 display [1,2,3,"hello",[1,2]].
89
90 -- Example 3 (recalling blah numbers from earlier):
91 A is a blah number, and
92 A = 3, and
93 display A.
94
95 -- Example 4:
96 X = 4, and
97 X = 9, and
98 display X.
99
100 -- Example 5:
101 display (join [1] and [1,2,3]).
102
103 -- Example 6:
104 A = [1,2,3], and
105 display (the first of A).
106
107 -- Example 7:
108 Sentence = "I like apples", and
109 display (the first of Sentence).
110
111 -- Example 8:
112 display the length of [[-10, 5], 1,2,3].
113
114 -- Example 9 (supposing we had defined "the factorial of"):
115 display (the factorial of -1).
116
117 -- Example 10 (recalling evaluating lists from the previous section):
118 evaluating ["f","a","l","l"] gives Value, and
119 display Value.
120
121 -- Example 11:
122 A = 4 * "E", and
123 display A.
124
125 -----
126 -- Section 3:
127 -- Based on the samples from Sections 1 and 3 (but NOT Section 2),
128 -- please write a program that accomplishes the task set out by the prompt.
129
130 -- Example 0:
131 -- Prompt: Ask the user for their name, and say "Hi <their name>"
132
133 -- You might answer as below. ANSWER STARTS and ANSWER ENDS are just for clarity, and

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not necessary.
134 -- ANSWER STARTS
135 display "What is your name?", and
136 read Name as Text,
137 display (join "Hi " and Name).
138 -- ANSWER ENDS
139
140 -- Example 1:
141 -- Prompt: Ask the user for their name. If their name is "Alice", then display
"Welcome!", otherwise, display "Access denied".
142
143 -- Example 2:
144 -- Prompt: Define foo numbers ("X is a foo number") so that the program below
145 -- displays the indicated values ("Yes!" or "No!")
146
147 test X is:
148     when X is a foo number then: "Yes!".
149     otherwise then: "No!".
150
151 display (test 2). -- Yes!
152 display (test 9). -- No!
153 display (test 24). -- Yes!
154 display (test 29). -- No!
155
156 X is a blah number, and
157 display (test X). -- No!
158
159 -- Example 3:
160 -- Prompt: Ask the user for a number, and display the the sum of the numbers from 1
to that number.
161 -- For example, if they enter 5, you would display "15" because 1 + 2 + 3 + 4 + 5 =
15.
162
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