

Problem Set 1, Problems 0 and 1

Problem 0: Reading and response

Put your response to the reading below.

1. The article states that, whether in science or business, we “don’t have to settle for models at all.” Do you agree or disagree with this statement? How? And why? Certainly feel free to articulate a more nuanced or hybrid view, if you’d like.

I agree with the statement ‘whether in science or business, we “don’t have to settle for models at all.” Now, as the article stated that we do not have to follow the traditional scientific method, which makes hypotheses, tests, and conclusions. We gather up the data and ask the computer to make a correlation to find the pattern. As an example, I think google’s advertisement is a good way to explain. google ‘s advertisement does not have to make hypotheses of the user’s interest. They just catch up on the data that users google and show the ads, which is relevant to the users. It’s correlation changes every single minute as users use google.

Problem 1: Statements, expressions and conditional execution

1-1. Tracing a simple program

line of code	x	y	z
x = 11	11		
y = 5	11	5	
y = y * 3	11	15	
z = y - x	11	15	4
x = x // 3	3	15	4
y = z % 3	3	1	4

1-2. Assignment statements and expressions

a) `a = a + 5`

b) `b = b ** a`

c) `b = a / 3`

d) `a == b`

e) `a % 3 == 0`

f) `6 <= b <= 16`

1-3. Conditional execution: Calls to the function `mystery()`

function call	output
a. <code>mystery([5, 7, 1])</code>	mound rebound
b. <code>mystery([4, 4, 6])</code>	round rebound
c. <code>mystery([8, 6, 3])</code>	found rebound
d. <code>mystery([1, 2, 3])</code>	zounds rebound
e. <code>mystery([2, 8, 8])</code>	mound ground rebound