

Problem Set 1, Problems 0 and 1

Problem 0: Reading and response

Put your response to the reading below.

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 disagree with this statement because not settling for models like in the stock market could be a risky thing. No one predicted World War I, and barely anyone predicted the Great Depression. Just because we have a lot of data doesn't mean that we should just rely on data of the past. We should use more than our past to predict the future, because when our data doesn't have something that's new and foreign, no one will know what will happen next. However, with day to day objectives, there can be an average or a mid-point where data can help us find out what normally occurs, like a bell curve.

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) $b ** a$
- c) $b = \frac{1}{3} * a$
- d) $a == b$
- e) $a \% 3 == 0$

f) $b < 6$ and $b > 16$

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

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