Problem Set 1, Problems 0 and 1

Problem 0: Reading and response
Put your response to the reading below.

2. To some extent I agree that there is no need to settle for models, not only because the big data could replace models, but also it could expand human's possibilities. Nowadays, in an era of massively abundant data, it is easy for us to view and analyze data mathematically, which is more directly and efficiently than applying to a model. Some models may be wrong or will be overturned in the future. It is more accurate and convenient to analyze the data without hypotheses about what it might show, throw the numbers into the biggest computing clusters and let statistical algorithms find patterns where science cannot. There is no need for people to find coherent models, unified theories or any mechanistic explanation. The huge amount of data offers a new way for people to understand the world.

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	
`x = x + 6`	17	5	
`z = y + x`	17	5	22
`x = x // 7`	2	5	22
`y = z % 3`	2	1	22

1-2. Assignment statements and expressions

a)`a = a + 5`

b)`b = b ** a`

c)`b = (1 // 3) * a`

d)`a == 2 + 3 * b`

e)`a % 3 = 0`

f)`b < 6 or b > 16`

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

function call	**output**
a. `mystery([3, 3, 3])`	mow dow row
b. `mystery([3, 4, 5])`	tow row
c. `mystery([5, 3, 2])`	mow row
d. `mystery([5, 5, 7])`	now how row
e. `mystery([6, 4, 6])`	bow row