Model 2 Lists

A variable can hold multiple values in the form of a ***list***. The values are separated by commas and wrapped in square brackets. For example:

```
primes = [2, 3, 5, 7, 11, 13, 17, 19, 23, 29]
```

Each ***element*** of the list can be referenced by an ***index,*** which is the sequential position starting at 0. For example, `primes[4]` is 11.

index	0	1	2	3	4	5	6	7	8	9
value	2	3	5	7	11	13	17	19	23	29

Do not type anything yet! Read the questions first!

Python code	Shell output
`odd = [1, 3, 5, 7]`	
`odd`	
`odd[2]`	
`odd[4]`	
`len(odd)`	
`number = odd[1]`	
`number`	
`odd[1] = 2`	
`odd`	
`number`	

Questions (10 min) Start time:

11. What is the index of the second element of `primes`? What is the value at that index?

12. How does the index number compare to the position of the element?

13. Type each line of code in a Python Shell and write the corresponding output in the space above. If an error occurs, write what type of error. Place an asterisk (*) next to any output for which you were surprised.

14. How did you reference the value of the 3rd element of `odd`?

15. What did the output of the len() function tell you about the list?

16. One of the lines in Model 2 displayed an error. Explain the reason for the error.

17. Write a statement that assigns a list of three integers to the variable `run`.

18. Write a statement that assigns the value 100 to the last element of `run`.

19. Write a statement that assigns the first value of `run` to a variable named `first`.