1

In [1]:	`x = 5`
In [4]:	`x`
Out [4]:	*what is printed here?*
In [3]:	`x = 6`

What if we click "Restart & Run All" from the "Kernel" menu?

```
s = Series(["A", "B", "C", "D"])
letters = Series(["x", "y", "z"], index=[1, 0, 3])
```

2

Expression	Result
`s[0]`	
`s[-1]`	
`s[-2:]`	
`s + s`	
`letters[0]`	
`s + letters`	
`s[1:] + s[:-1]`	

```
v = Series([-1, 1, 200, 191, 4])
```

3

Expression	Result
`v < 0`	
`v * v == 1`	
`v[v > 100]`	
`v[v % 2 == 0]`	
`v[(v>0) & (v<100)]`	

note: boolean series s and t are ANDed with **s & t** (not **s and t**).
also: boolean series s and t are ORed with **s | t** (not **s or t**)

Code:	storms.csv:
path = "storms.csv" tab = pd.read_csv(path) map = DataFrame({ "code": ["o","p","a"], "where": ["other","Pacific","Atlantic"] })	name,year,type,speed,place alice,2016,tornado,100,o bob,2016,hurricane,200,p cindy,2017,tornado,150,o dan,2018,tornado,300,o eve,2018,hurricane,250,a

---

4

Expression	Result
map["code"]	
map.code	
type(map.code), type(map.where)	
tab.year.mean()	
tab.year == 2018	
tab.name[tab.year == 2018]	
map["where"] == "Atlantic"	
b = map["where"] == "other" code = map.code[b].item() nms = tab.name[tab.place==code]	# what are b, code, nms?

5

Expression	Result
tab.loc[0]	
tab.loc[4, "type"]	
map.loc[0,"where"] = "mainland" place = map["where"][0]	# what is place?
tab.loc[:, "speed"] += 1 col = tab.speed	# what is col?

note: s.COL is a shortuct for s["COL"], unless COL collides with a method name
also: when a Series s contains exactly one one item, s.item() extracts it