Module 3.2a

A JIT compiler (such as Numba) will "trace" the execution of a function to cache compiled versions of the underlying code. It can specialize a function based on it types, the functions it calls, and its loop structure.

For the following code we will assume that we know the types of x, y and out. Respond True if you think a JIT could make it faster, and False if not.

1 1 point

```
for i in range(10):
   out[i] = x[i] * y[i]
```

- True
- False

2 1 point

```
for j in range(100):
    out.append(unseen_python_function(x[i]))
```

- True
- False

3 1 point

```
ls = ["hello", 5, 20.0, "m"]
for l in ls:
    out.append("a" + str(l))
```

- True
- False

4 1 point

```
for i in range(100):
    for j in range(100):
          calc = x[i] * 1000
          y[i, j] = calc
```

- True
- False