Topic 08: Syntactic Sugar

1 enumerate

Note 1.

Problem 2. What is the output of the following python code?

```
names = ['alice', 'bob', 'charlie', 'dave', 'eve']
accumulator = []
for i, name in enumerate(names):
    text = name + '␣is␣number␣' + str(i)
    accumulator.append(text)
print('accumulator[3]=', accumulator[3])
```

Fraction of LLMs with correct answer: 10 / 15 = 0.67

Problem 3. What is the output of the following python code?

```
names = ['alice', 'bob', 'charlie', 'dave', 'eve']
accumulator = []
for i,name in enumerate(names):
    text = 'number␣' + str(i) + '␣is␣' + name
    accumulator.append(text)
print('accumulator[-1]=', accumulator[-1])
```

Fraction of LLMs with correct answer: 11 / 15 = 0.73

Problem 4. What is the output of the following python code?

```
sentence = 'python␣is␣*weird*'
accumulator = ''
for i, char in enumerate(sentence):
    if char == '*' and sentence[i-1] == '␣':
        accumulator += '_'
    elif char == '*':
        accumulator += '_!'
    else:
        accumulator += char
print('accumulator=', accumulator)
```

Fraction of LLMs with correct answer: 4 / 15 = 0.27

Problem 5. What is the output of the following python code?

Fraction of LLMs with correct answer: 15 / 15 = 1.00

Problem 6. What is the output of the following python code?

```
names = ['alice', 'bob', 'charlie', 'dave', 'eve']
greetings = ['hello␣' + name for name in names]
greeting = greetings[2]
print('greeting=', greeting)
```

Fraction of LLMs with correct answer: 10 / 15 = 0.67

2 List Comprehensions

Problem 7. What is the output of the following python code?

```
xs = [ x*x for x in range(10) ]
num = xs[5]
print('num=', num)
```

Fraction of LLMs with correct answer: 10 / 15 = 0.67

Problem 8. What is the output of the following python code?

```
xs = [x*x for x in range(10) if x%2]
num = xs[3]
print('num=', num)
```

Fraction of LLMs with correct answer: 4 / 15 = 0.27

Problem 9. What is the output of the following python code?

```
xs = [x**x for x in range(-3,3)]
num = xs[5]
print('num=', num)
```

Fraction of LLMs with correct answer: 1 / 15 = 0.07

Problem 10. What is the output of the following python code?

```
xs = [x for x in range(-3,3) if x]
num = xs[3]
print('num=', num)
```

Fraction of LLMs with correct answer: 3 / 15 = 0.20

LLM Model Performance