

## **Review of loop types:**

1. while-loop... use this when the index is important or when you don't know when the loop will end
2. for-loop: use when index is not important. for-loop only gives you the values... e.g. 20, 40, 60
3. range for-loop. This one, like the while-loop, gives you the indices. But unlike while-loop, this one follows a pattern to the end... e.g. 0, 1, 2, ..., or 5, 4, 3,...

# ConceptTest

How many lines are output by this nested loop?

```
x = 0
while x < 3:
    y = 1
    while y < 3:
        print(x, y)
        y = y + 1
    x = x + 1
```

- ▶ A. 2
- ▶ B. 3
- ▶ C. 6
- ▶ D. 8
- ▶ E. 9

# ConceptTest

What is the output of this code? (Output is on one line here to save space.)

```
n = 3
while n > 0:
    if n == 5:
        n = -99
    print(n)
    n = n + 1
```

- ▶ A. 3 4
- ▶ B. 3 4 5
- ▶ C. 3 4 -99
- ▶ D. 3 4 5 -99

# ConceptTest

How many lines are output by this nested loop?

```
x = 0
y = 1
while x < 3:
    while y < 3:
        print(x, y)
        y = y + 1
    x = x + 1
```

- ▶ A. 2
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