

A1: What gets printed?

```
a = 0
while a < 1:
    a = a + 1
```

```
print(a)
```

a 0 1

1

```
a = 0
while a < 2:
    a = a + 1
```

```
print(a)
```

a 0 1 2

2

```
a = 0
while a > 2:
    a = a + 1
```

```
print(a)
```

a 0

0

7

A2: What gets printed?

```
a = 4
while a > 0:
    a = a - 1
```

```
print(a)
```

a 4 3 2 1 0

0

```
a = 0
while a < 3:
    if a < 2:
        a = a + 1
```

```
print(a)
```

a 0 1 2

"infinite loop!"

10

A3: What gets printed?

```
a = 8
b = 12
while a != b:
    if a > b:
        a = a - b
    else:
        b = b - a
print(a)
```

- A: Infinite loop
- B: 8
- C: 12
- D: 4 **CORRECT**
- E: I don't know

This is Euclid's Algorithm for finding the greatest common factor of two positive integers. **Trivia:** It is one of the *oldest* recorded algorithms (~300 B.C.)

13