

More practice with interleavings:

(Adapted from Problem 2.19 from Andrews's MPD text)

Consider the following program:

```
int x = 10, y = 0;
co while (x != y) x = x - 1; y = y + 1;
// <await (x == y);> x = 8; y = 2;
oc
```

P		Q	
p1: while (x != y)		q1: while (x != y) ; // spin	
p2: x <-- x - 1;		q2: x <-- 8;	
p3: y <-- y + 1;		q3: y <-- 2;	

Explain what it takes for the program to terminate.

Can P terminate, but not Q?

Can Q terminate, but not P?

When the program does terminate, what are the final values for x and y?

Construct scenarios.

P	Q	x	y
p1	q1	10	0

Or describe in words.