2G1516 Formal Methods – HT05
Owicki-Gries

Exercise 1 Let c be the following command:

> (*done1*, *done2*) := (*false*, *false*) ;
> cobegin (x,*done1*) := (x+1,*true*) ‖ (x,*done2*) := (x+1,*true*) coend

Use Owicki-Gries to prove $\{x = 0\}c\{x = 2\}$. □

Exercise 2 Use Owicki-Gries to prove partial correctness of the following program:

```
z := 0 ;
cobegin
  while x != 0 do z := z + 1 ; x := x - 1 od
      ||
  while y != 0 do z := z + 1 ; y := y - 1 od
coend
```

□