

INF 1050

UKEOPPGAVER 12: TESTING (WHITE-BOX TESTING)

Innledning: Her skal du bli kjent med noen testing-teknikker innen white-box testing. Du må bruke det du har lært på forelesningen for å løse disse oppgavene.

The following program computes the greatest common divisor of two natural numbers by Euclid's algorithm.

```
Begin
  input(x,y);
  While(x>0 and y>0) Do
    If (x>y)
      Then x:=x-y
      Else y:=y-x
    Endif
  Endwhile
  output(x+y);
End
```

Questions:

1. Build the corresponding control flow graph
2. Devise test sets (in the form of paths), and then test inputs (i.e., values for x and y) in order to achieve:
 - a. statement coverage
 - b. edge coverage
 - c. condition coverage (notice anything special?)
 - d. path coverage (beware of impossible paths!)
