

Solution :

1. first part of code executed before <await>, so the  $x=0$ ,  $y=1$  and the program can not terminate.
2. <await> succeeded and program finished with  $x=8, y=2$
3. after  $x=x-1=0$ , <await> code executed, so  $x$  became 8 and  $y=2$ , so the while() continued and program finished with  $x=2$ ,  $y=3$
4. same as last one, but only executed  $x=8$ ,  $y$  remained 0, but when  $x$  reduced to 1,  $y=2$  was executed, so the loop failed, program could not terminate and  $x$  kept decreasing.
5. same as last one, but  $y=2$  is executed after  $x=0$ , loop quited successfully, so the program finished with  $x=0$  and  $y=2$  or 3.