writeMem(14, 16'b1010000100000111);

writeReg( 1, 16'h0004);

run(14,1);

readMem(16'hf3fe, out);

if(out == 4 && SP == 16'hf3fe)

$display("----------------good push1" );

else

$display("-----------------bad push1" );

writeMem(16, 16'b1010000100000100);

writeReg( 1, 16'h0004);

run(16,1);

if(SP == 16'hf3ff)

$display("----------------good push2" );

else

$display("-----------------bad push2" );

writeMem(15, 16'b1011001000000111);

run(14,2);

readReg(1, out);

if(out == 4 && SP == 16'hf3ff)

$display("----------------good pop1" );

else

$display("-----------------bad pop1" );

writeMem(15, 16'b1010000100000100);

writeReg( 1, 16'h0004);

run(15,1);

if(SP == 16'hf3ff)

$display("----------------good pop2" );

else

$display("-----------------bad pop2" );