```c
#include <stdio.h>

#include <xstatus.h>

#define XPAR_RS232_UART_1_BASEADDR 0x84000000




int getNumber (){

    Xuint8 byte;
    Xuint8 uartBuffer[16];
    Xboolean validNumber;
    int digitIndex;
    int digit, number, sign;
    int c;

    while(1){
        byte = 0x00;
        digit = 0;
        digitIndex = 0;
        number = 0;
        validNumber = XTRUE;

        //get bytes from uart until RETURN is entered

        while(byte != 0x0d){
            byte = XUartLite_RecvByte(XPAR_RS232_UART_1_BASEADDR);
            uartBuffer[digitIndex] = byte;
            XUartLite_SendByte(XPAR_RS232_UART_1_BASEADDR,byte);
            digitIndex++;
        }

        //calculate number from string of digits

        for(c = 0; c < (digitIndex - 1); c++){
            if(c == 0){
                //check if first byte is a "-"
                if(uartBuffer[c] == 0x2D){
                    sign = -1;
```

```
					digit = 0;
				}
				//check if first byte is a digit
				else if((uartBuffer[c] >> 4) == 0x03){
					sign = 1;
					digit = (uartBuffer[c] & 0x0F);
				}
				else
					validNumber = XFALSE;
			}
			else{
				//check byte is a digit
				if((uartBuffer[c] >> 4) == 0x03){
					digit = (uartBuffer[c] & 0x0F);
				}
				else
					validNumber = XFALSE;
			}
			number = (number * 10) + digit;
		}
		number *= sign;
		if(validNumber == XTRUE){
			return number;
		}
		print("This is not a valid number.\n\r");
	}
}




int operando;
char key;
int main()
{

	// escribe un mensaje en la pantalla del hyperterminal

	xil_printf("Introduce una letra\n\r");

	// lee una letra de teclado

	key = XUartLite_RecvByte(XPAR_RS232_UART_1_BASEADDR);
```

```
        // escribe una letra en la pantalla del hyperterminal

        XUartLite_SendByte(XPAR_RS232_UART_1_BASEADDR,key);
                print("\r\n");

                xil_printf("Introduce un numero\n\r");
   // lee un número de teclado

        operando = getNumber();
                print("\r\n");
  print("-- Exiting main() --\r\n");
  return 0;


}
```