1. First, #include <stdio.h> and int main() { } must be written. Then the computer compiles it, aka rewrites it into 0's and 1's (binary) in a way the computer can understand

2.

```
# include <stdio.h>

int main()
{
    int a,b;
    printf("Enter weight: \n");
    scanf("%d", &a);
    printf("Enter age: \n");
    scanf("%d", &b);
    printf("Your weight is %d and
    your age is %d.", a, b);
}
```

3. a = 0011011110010100
   b = 1000001001101000

1) a|b = 1011011111111100 = B7FC
2) a^b = 1011010111111100 = B5FC
3) ~a = 1100100001101011 = C86B
4) a&b = 0000001000000000 = 0200

4 a) Second sentence
b) $y < 0$
c) Second option

5. if ((ascii > 48 & ascii < 54) | (ascii > 96 & ascii < 123))
{
printf("%c" ascii);
}

6 a) $x > 0$
$x > 1$

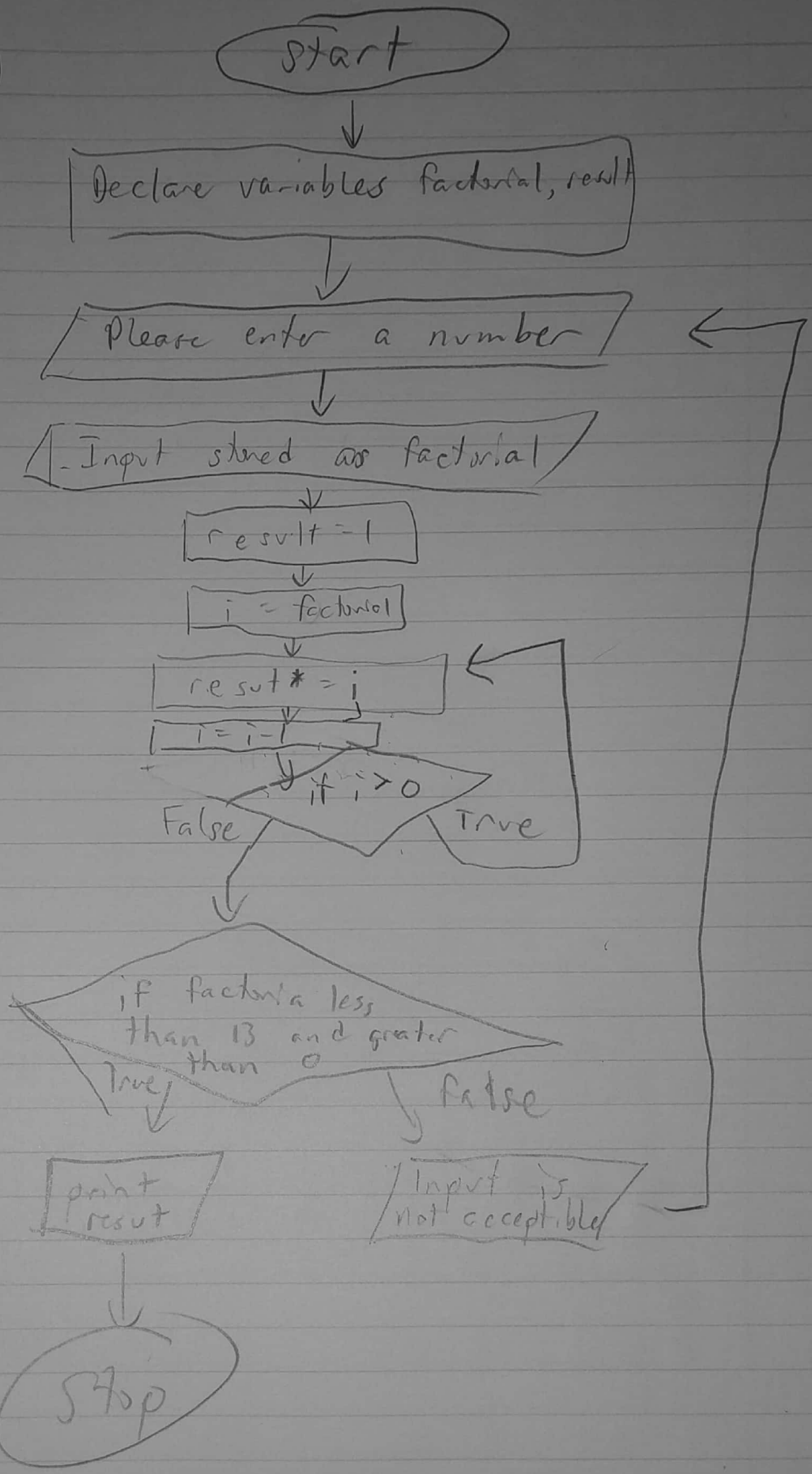
b) False

7. a) 8
6
4
2
0
-2

b) 4
9
14

c) $4 * 2 = 8$
$4 * 4 = 16$
$4 * 6 = 24$
$4 * 8 = 32$

9 a)



```c
 */

#include <stdio.h>

int main()
{
    /* Declare variables */
    int counter;   /* loop counter */
    int product;   /* result,  5^N */
    int endCount;  /* power N */

    /* Read value of N */
    printf("This program will compute 5^N; enter N: ");
    scanf("%d", &endCount);


    /* Print the answer */


    /* Compute 5^N */
    product = 1;
    for (counter = 1; counter <= endCount; counter = counter + 1)
    {
        product = 5*product;
    }
    if (endCount > 13) {
        printf("The value exceeds the supported numerical range.");
    }
    else if (endCount < 0) {
        printf("The operation is undefined for negative integers.");
    }
    else {
        printf("%d\n", product);
    }


    return 0;
}
```

```c
#include <stdio.h>

int main()
{
    /* Initialization */
    int factorial;   /* input to be entered by the user */
    int result;      /* result,  factorial! */

    while (1==1) {
        printf("Please enter a number: ");
        scanf("%d", &factorial);

        int i;
        /* Compute factorial */
        result = 1;
        for (i = factorial; i > 0; i = i-1) {
            result *= i;
        }
        /* Print the answer */
        if (factorial < 13 & factorial > 0) {
            printf("%d\n", result);
            return 0;
        }
        else {
            printf("The input is not acceptable, try again. \n");
        }
    }

}
```