**CEC 320**

**Homework 2**

Cameron Stark

1.)

a.)

task1 PROC

LSL r1, #4

MOV r0, r1

BX lr

ENDP

b.)

task2 PROC

MUL r1, #17

MOV r0, r1

BX lr

END

c.)

task3 PROC

MUL r1, #15

MOV r0, r1

BX lr

ENDP

d.)

task4 PROC

ASR r1, #4

MOV r0, r1

BX lr

ENDP

e.)

task5 PROC

ASR r1, #4

MUL r1, #17

BX lr

ENDP

f.)

task6 PROC

ASR r1, #4

MUL r1, #15

BX lr

ENDP

2.)

The operations that make use of LSL which left shifts a value by the number provided, changes when the number is a negative or positive

3.)

a.)

0000.1000

b.)

0010.0100

c.)

6.725 \* 2^4 = 108

0110.1100

d.)

-4.5 = 0100.1000 -> 011.1000

4.)

a.)

0111.0111 -> 14.87

b.)

1010.1010 -> -10

5.)

a.)

count = 1

x = 1946157056

y = 1946157056

z = 0

count =1

x= -805306368

y = -805306368

z = 1

count = 3

x = 1073741824

y = 1073741824

z = 0

count = 4

x = 0

y = 0

z = 0

count = 5

b.)

r1 = 1

r0 = -1660944384

r0 = 1946157056

r1 = 1

r0 = 1946157056

r0 = -805306368

r1 = 2

r0 = 1073741824

r0 = 0

r1 = 2

r0 = 0