



YEDİTEPE UNIVERSITY

CSE232 SYSTEMS PROGRAMMING

2023 SPRING

ASSIGNMENT 1

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Inputs		Results (binary)		Results (decimal)		Correct or not	Explanation
x	y	x	y	x	y		
5	20	111101	10	61	2	Incorrect	When dividing floating part of the result is ignored.
10	24	10000001	11	129	3	Correct	-
1	40	11101100	101	236	5	Incorrect	Final value of the x is negative so the result is 2's complement of actual result

Codes:

```
LDAA #10
STAA $50
LDAA #24
STAA $60 ; inputs are stored
```

```
LDAA $50 ; x
ASLA ; x * 2
ADDA $50 ; x * 3
STAA $50 ; 1. Step is done
```

```
LDAA $60 ; y
ASRA ; y / 2
ASRA ; y / 4
ASRA ; y / 8
STAA $60 ; 2. Step is done
```

```
LDAA $50 ; x
ASLA ; x * 2
ASLA ; x * 4
ADDA $50 ; x * 5
```

```
LDAB $60 ; y
ASLB ; y * 2
ASLB ; y * 4
ASLB ; y * 8
SUBB $60 ; y * 7
```

```
SBA ; x = (x * 5) - (y * 7)
STAA $50 ; 3. Step is done
```