

CSE 30 – ARM worksheet 1

1. True or False: registers don't have addresses, they only have names
2. What does this statement do? `add r0, r1, r2`
A. `r0 = r1 + r2` B. `r2 = r0 + r1`
3. What does `load` do as an ARM instruction?
A. get data from memory to registers B. store data from register to memory
4. Write an assembly code to add three values and print out their sum. Assume that the values we want to add are in `r0`, `r1`, and `r2`

```
.cpu cortex-a53
.syntax unified
.arch armv6

fmt:
.section .rodata
.asciz "%d\n"

.section .text
.align 2

.equ FP_OFFSET, 4
.type main, %function
.global main

main:
push {fp, lr}
add fp, sp, FP_OFFSET

//assign 7 to r0
//assign 8 to r1
//assign 20 to r2

//perform r0= r0+r1+r3

mov r1, r0
```

```
ldr r0, =fmt
bl printf

mov r0, 0
sub sp, fp, FP_OFFSET
pop {fp, lr}
bx lr

.end
```