2.20 1. srl \$+0, \$+0, 11 0000 0000 0001 IIII IIII IIII IIIX XXX 2. sll \$+0, \$+0, 26 0000 0000 0001 1111 1111 1111 111××××× 0000 0000 0000 0000 0000 0000 0000 3. sll \$t1, \$t1, 6 -4. srl \$t1, \$t1, 6 - give 0000 0011 1111 1111 1111 1111 1111 1111 add \$+1,\$+0,\$+1 ××× ××00 0000 0000 0000 0000 0000 1111 1111 1111 1111 1110 0000 + 1 ST \$+0, \$+0, 11 2 SI \$+0, \$+0, 26 sl1 \$t1, \$t1, 6 sr1 \$t1, \$t1, 6 4 5 add \$+1, \$+0, \$+1

2.25)	a)	I-type is	most a	appropriate	because I	-type
	,	includes 16	, bits f.	or address.	which is	required
		for handlin	of the lo	op address,	,	V

2.26) a)
$$1 - \pm 1 = 10 \pm 12 = 1 \pm 11 = 9 \pm 52 = 2$$
 $2 - \pm 11 = 9 \pm 12 = 1 \pm 11 = 8 \pm 52 = 4$

3 -

4 -

5 -

6 -

7 -

8 -

9 -

10 - $\pm 11 = 1 \pm 12 = 1 \pm 11 = 0 \pm 52 = 20$
 $11 - \pm 11 = 0 \pm 12 = 0 \rightarrow DONE$
 $\pm 52 = 20$

Ans

b) While ($\pm > 0$) {
 $\pm = \pm -1$
 $\pm = 2 + 1 = 0 \pm 12 = 0 \rightarrow DONE$

C) The final iteration only executes 2

Instructions, while all others execute

5. Thus the answer is $\pm 12 = 1 \pm 11 = 9 \pm 12 = 20$
 $\pm 13 = 12 = 12 = 12$
 $\pm 13 = 12 = 12 = 12 = 12$

Ans

abs \$54, \$57

1. sra \$+0,\$57,31

Sign bit is shifted in, so \$10 will be 0x0 if positive and 0xFFFFFFFF if negative.

2. xor \$57, \$57, \$+0

 $e \times 1$. S = 00000101 \$+0 = 00000000 $\Rightarrow 00000101$

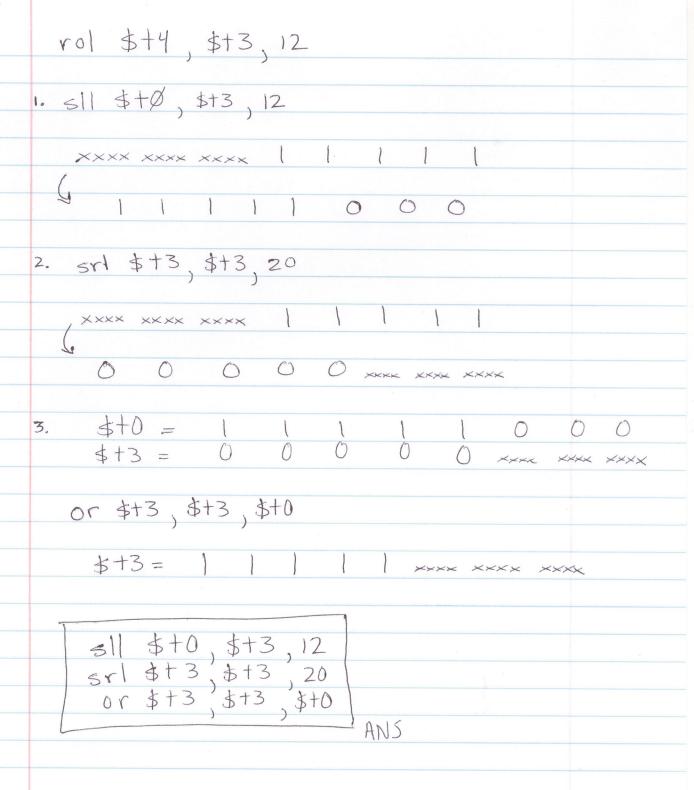
3. sub \$54, \$57, \$t0

ex1. 00000101 - 00000000 = 00000101 = 5

 $e \times 2$ 00000100 - 11111111 = 00000101 = 00000101 = 5

ANS

sra \$t0,\$57,31 xor \$57,\$57,\$t0 sub \$54,\$57,\$t0



1d \$+6,0(\$s4)

lw \$t6, 0(\$54) lw \$t7, 4(\$54)

ANS