

1. A number  $X = (24)_6$  with base 6 can be written as  $X = ( \quad )_7$  with base 7
2. The register stores address of the next instruction is \_\_\_\_\_
3. Write decimal number  $-19$  as 6-bit 2's complement form: \_\_\_\_\_
4. Two numbers  $A = 101101$  and  $B = 111001$  are in 2's complement form.  $A+B =$  \_\_\_\_\_ (in 2's complement form);  $A+B =$  \_\_\_\_\_ (in decimal)
5. Can we use the **ori** instruction to put a negative integer (in two's complement form) into a register? (Yes or No) \_\_\_\_\_
6. Can the immediate operand of the **addiu** instruction be a negative integer in two's complement form? (Yes or No) \_\_\_\_\_
7. Register  $\$10$  contains the address  $0x1000\ 0000$ . Beginning at that address there are five integers (each occupies 4 bytes) in a row. Use **lw** to load the last integer into register  $\$7$ : (Note: **lw \$t, offset (base register)**): \_\_\_\_\_

1. A number  $X = (24)_7$  with base 7 can be written as  $X = ( \quad )_6$  with base 6
2. The register stores address of the next instruction is PC
3. Write decimal number -18 as 6-bit 2's complement form: \_\_\_\_\_
4. Two numbers  $A = 101110$  and  $B = 111001$  are in 2's complement form.  $A+B = 10011$  (in 2's complement form);  $A+B = -15$  (in decimal)
5. Can we use the **ori** instruction to put a negative integer (in two's complement form) into a register? (Yes or No) No
6. Can the immediate operand of the **addiu** instruction be a negative integer in two's complement form? (Yes or No) Yes
7. Register \$8 contains the address 0x1000 0000. Beginning at that address there are six integers (each occupies 4 bytes) in a row. Use **lw** to load the last integer into register \$7: (Note: lw \$t, offset (base register)): lw \$7, 20(\$8)