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CS 2340 Set 4  
(Written)

5ED4 - 07A4 (unsigned 16-bit)

3.1) 5ED4  
- 07A4

5730 or 22320 in decimal

3.2) 0x0C000000 - if two's complement:

0000 1100 0000 0000 0000 0000 0000 0000

MSb is 0, so positive

a)  $\rightarrow$  = 201326592

b) if unsigned: 0000 1100 0000 0000 0000 0000 0000 0000  
= 201326592

3.2) 0x0C000000

0000 1100 0000 0000 0000 0000 0000 0000

First  
6-bits

6

$\rightarrow$  opcode: 3 dec/hex  $\rightarrow$  jal 0

3.2) 0x0C000000 (assuming single-precision integer)

0000 1100 0000 0000 0000 0000 0000 0000

1 23

sign bit: 0

exponent: 00011000 = 24<sub>dec</sub>  $\rightarrow$  24 - 127 = -103

fractional component: 000...00

23

0.0000... = 0, +1 = 1  $\rightarrow$   $1 \cdot (-1)^0 \cdot 2^{-103}$

$9.86 \cdot 10^{-32}$

$\rightarrow$

binary  $1.0 \cdot 2^{-103}$