Question 1

A system with an 8088 is to have one 16K x 8-bit Flash ROM chip for program storage, starting at location $FC000. The chip has an active high (i.e. not complemented) Chip Enable (CE) input.

Answer the following questions:

i What is the address range for the ROM, in Hex?
ii How many address pins does the ROM have?
iii How many data pins does the ROM have?
iv Which ROM address pins connect to which µP address bus lines? How?
v To what do the ROM data pins connect?
vi Which ROM input pin needs to be asserted to enable the chip? Does it need a 1 or a 0?
vii Design the address decoding logic

Show the way the ROM chip is connected to the µP and obtain the resulting memory map assuming there are no other memory chips.

Assume MIN - MODE
How about the M16 chips?

A1g to A1h must be used. Also, M/Io.

CE = 1 to enable the chip.

2x - 27

8 lines to A13 to R0. Connect to the R0 bus lines (so does the 8088).

16 x 8

16K = 16 x 1024 = 0x 1024. So # bits = 0x 16K = 19 Gigs.