Problem 1
1. How many address lines and input/output lines are needed for a 32 X 16 memory?
   \[ Address \ Lines: \ 5^1 = 32 \Rightarrow n = 5 \]

   \[ Input/Output \ Lines: \ 16 \]

2. How many bytes could be stored in the memory of #1
   Each location stores 2 bytes
   \[ 2 \times 32 = 64 \text{ bytes} \]

Problem 2
1. How many 32 x 8 RAM chips (size is for easy of testing not practicality) are needed to provide a memory capacity of 256 bytes? Show how this would be implemented.
   \[ 256 \div 32 = 8 \Rightarrow 8 \text{ chips needed} \]

   1 Byte/word