#1. Show the representation of $-417_{10}$ in the following representation schemes (assume 16-bit words):

a) sign magnitude

b) one's-complement

c) two's complement

#2. Convert $564_{10}$ into (assume 16-bit words):

a) binary

b) octal

c) hexadecimal

#3. Fill in the CCR bits for the following addition instructions (8-bit two's-complement numbers):

\[
\begin{array}{c}
00110111 + 01001011 \\
\hline
\end{array}
\quad \begin{array}{c}
10110001 + 11010111 \\
\hline
\end{array}
\]

\[
\begin{array}{c|c|c|c|c}
N & Z & V & C \\
\hline
| & | & | & | \\
\hline
\end{array}
\quad \begin{array}{c|c|c|c|c}
N & Z & V & C \\
\hline
| & | & | & | \\
\hline
\end{array}
\]

(over)
#4. Powers of 2

512G = 2——

\[2^{14} = \text{______} \quad (\text{in terms of K, M, G, etc.})\]

#5. List the order of the stages of the compilation process discussed in class:

A - as (assembler)
B - exe/a.out (executable image)
C - cpp (C Preprocess)
D - ld (Linkage Editor)
E - ccomp (C Compiler)

% cc/gcc file.c ---> _______ ---> _______ ---> _______ ---> _______ ---> _______