#1. Show the representation of \(-354_{10}\) in the following representation schemes (assume 16-bit words):

a) sign magnitude

b) one’s-complement

c) two’s complement

#2. Convert \(381_{10}\) into (assume 16-bit words):

a) binary

b) octal

c) hexadecimal

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

\[
\begin{array}{c}
10110110 \\
+ 11001001 \\
\hline
\end{array}
\quad
\begin{array}{c}
10101111 \\
+ 01010101 \\
\hline
\end{array}
\]

N  Z  V  C

\(\begin{array}{cccc}
| & | & | & |
\hline
\end{array}\)

(over)
#4. Powers of 2

128K = 2——

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

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

A - ccomp (C Compiler)
B - ld (Linkage Editor)
C - as (Assembler)
D - cpp (C Preprocessor)
E - exe/a.out (Executable image)

% cc/gcc file.c --> \underline{\text{______}} --> \underline{\text{______}} --> \underline{\text{______}} --> \underline{\text{______}} --> \underline{\text{______}}