COSC 290

Class Exercises #10 (Ch. 5)

* + - 1. Fill in the following table to show how the given integers are represented, assuming that 16 bits are used to store values and the machine used two’s complement notation.



1. Convert the following expressions from infix to reverse Polish (postfix) notation.
   1. (8 – 6) / 2 + 7 \* (4 – 2) + 3 – 5
   2. W \* (X + Y \* (U \* V))/(U \* (V – X / Y))
2. Use a stack to evaluate the following postfix expression.

3 5 7 + 2 1 - \* 1 + +

1. In a computer instruction format, the instruction length is 11 bits and the size of an address field is 4 bits. Is it possible to have

5 two-address instructions

45 one-address instructions

32 zero-address instructions

using the specific format? If so, show the encoding.



