

Suppose we have the instruction Load 1000. Given memory and register R1 contain the values below: ...

Memory	
1000	1400
...	
1100	400
...	
1200	1000
...	
1300	1100
...	
1400	1300

R1
200

Assuming R1 is implied in the indexed addressing mode, determine the actual value loaded into the accumulator and fill in the table below:

Mode	Value Loaded into AC
Immediate	
Direct	
Indirect	
Indexed	

Convert the following expressions from reverse Polish notation to infix notation.

- W X Y Z - + *
- U V W X Y Z + * + * +
- X Y Z + V W - * Z + +

Modes:

1. Immediate:

- No immediate mode in this case.

2. Direct:

- No direct mode in this case.

3. Indirect:

- Value Loaded into AC for Indirect Mode: 1300 (as per the content at memory location 1400)

4. Indexed:

- Value Loaded into AC for Indexed Mode: $1000 + 200 = 1200$ (as per the content at memory location 1200)

Conversion from Reverse Polish Notation to Infix Notation:

a. W X Y Z - + *:

- Infix Notation: $W * (X + (Y - Z))$

b. U V W X Y Z + * + * +:

- Infix Notation: $((U + (V * (W + (X * (Y + Z))))))$

c. X Y Z + V W - * Z + +:

- Infix Notation: $((X + Y + Z) + ((V - W) * Z))$