

Outputs of Program A(version 1 and 2) and Program B(version 1 and 2):

Program A version 1:

```
*Results*:  
Dynamic Instruction Count: 93  
PC: 68  
Registers:  
    $1 = 2  
    $2 = 32  
    $3 = 0  
    $4 = -39  
    $5 = 32  
    $6 = 0  
    $7 = 0
```

Program A version 2:

```
*Results*:  
Dynamic Instruction Count: 196  
PC: 68  
Registers:  
    $1 = -4095  
    $2 = 40  
    $3 = 1  
    $4 = 696324  
    $5 = 40  
    $6 = 0  
    $7 = 0
```

Program B version 1:

```
*Results*:  
Dynamic Instruction Count: 161  
PC: 92  
Registers:  
    $1 = 0  
    $2 = 40  
    $3 = 0  
    $4 = 0  
    $5 = 51  
    $6 = 40  
    $7 = 0
```

Program B version 2:

***Results*:**

Dynamic Instruction Count: 271

PC: 88

Registers:

\$1 = 0

\$2 = 60

\$3 = 0

\$4 = 5

\$5 = 85196

\$6 = 60

\$7 = 0