

## 2492 Radix 3

The Great Sand Council (GSC) of the planet Phleebutt (apologies to Sierra) have devised a base 3 number system to suit their physiology. The symbols used to represent the three valid digits of their number system are '0', '1', and '-', following the unusual configuration of their 'hands' (don't ask). The decimal counterparts of the three symbols are, respectively, 0, 1 and -1.

Each position in a number has a value three times greater than the position immediately to its right. For example, the number '10-' has the value 8 in decimal, since  $1 * 9 + 0 * 3 + -1 * 1 = 8$ . Similarly, the number '-1' has the decimal value -2, since  $-1 * 3 + 1 = -2$ .

### Input

Your program will receive a list of integers as input.

### Output

You have to write a program that can convert 32-bit signed decimal integers into their equivalent Great Sand Council (GSC) representations.

You have to echo the input numbers, followed by their GSC representations (include all extra symbols, as shown below)

### Sample Input

```
10
2
-17
42
1024
```

### Sample Output

```
10 = 101 GSC
2 = 1- GSC
-17 = -1-0- GSC
42 = 1---0 GSC
1024 = 111-0-1 GSC
```