

# Syntax of Llanguage

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```
B := S B
    | [empty]

S := V <- IE;
    | for( v1 <- 0; v1 < v2 ; v1 <- (v1 + 1) ) { B }
    | IE;
    | if(BE) {B}
    | if(BE) {B} else {B}

IE := Int
    | (IE + IE)
    | input()
    | V

BE := V = Int
    | V < Int
    | V <= Int
    | V > Int
    | V >= Int

V := [a-zA-Z_][a-zA-Z0-9_]*
```

All values should have range  $[0, 2147483647]$ . If overflow occurs during interpretation, then it generates error and halts.

## Examples

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```
x <- input();
x <- ( x + 1 );
overflow (maximum x = 2147483648)
```

```
x <- input();
if( x > 2137546063 ) {
    x <- 2137507655;
}
if( x <= 2137599644 ) {
    x <- ( x + 30868 );
}
safe (maximum x = 2137576931)
```

```
x <- input();
if( x > 1726640836 ) {
    x <- 1726606656;
}
```

```
if( x <= 1726696811 ) {  
  x <- ( x + 13703 );  
}  
x2 <- 452245623;  
x3 <- ( x2 + x );  
overflow (maximum x3 = 2178900162)
```

```
x <- input();  
if( x > 100 ) {  
  x <- 17;  
}  
if( x <= 1148 ) {  
  x <- ( x + 134 );  
}  
x2 <- 0;  
for( x3 <- 0; x3 < x; x3 <- ( x3 + 1 ) ) {  
  x4 <- input();  
  if( x4 > 14294191 ) {  
    x4 <- 14263305;  
  }  
  if( x4 <= 14354459 ) {  
    x4 <- ( x4 + 2825 );  
  }  
  x2 <- ( x2 + x4 );  
}  
overflow (maximum x2 = 3345501744)
```