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FCLD - Assignment 1

The Lizard programming language is a Python-like language:
- type declaration needed
- indentation still matters
- len(x) -> x.length()
- print(x) -> display(x)
- * -> prod
- % -> mod
- / -> div
- != -> not
- casting like x.toString() or x.toInt()
- already implemented inverse with .reverse()

Problem 1 - Bubble Sort

```
list arr
int n, i
arr = [ 2, 1, 10, 23 ]
n = arr.length()
for i in range(n):
        for j in range(0, n - i - 1):
        if arr[j] > arr[j + 1]:
                arr[j], arr[j + 1] = arr[j + 1], arr[j]
display(arr)
```

Problem 2 - Largest Prime Divisor of a Number

```
int n, largest_prime, i
n=87
largest_prime = -1
   i = 2
   while i prod i <= n:
      while n mod i == 0:
         largest_prime = i
         n = n div i
      i = i + 1
   if n > 1:
      largest_prime = n
display(largest_prime)
```

Problem 3 - Check Sum of Digits of N is palindrome

```
int num, sum, temp
string s, s_rev
num = 56
sum = 0

while num not 0:
    temp = num % 10
    sum = sum+temp
    num = num/10

s = sum.toString()
s_rev = string.reverse()

if s == s_rev:
    display("Yes")
else:
    display("No")
```

Problem 4 [wrong] - Sum of numbers from 1 to N which are divisible by 3 or 4

```
int n
n = 100
sum = 0

for i in range(1, n+1):
    if i mod 3 == 0 or i mod 4 == 0:
        sum += i
print(sum)
```

Issues:
** sum is not declared*
** print instead of display*