

CXW programming language

Documentation:

This mini programming language is similar to C++, but it has the some differences:

- read(var) - reads a value and stores it in 'var'
- print(var) - prints a string or int value to the console
- statements don't end with ';'.
- variable declaration follows this rule: a (int), b(string)
- comments are used using '--' syntax
- a variable name must start with _ or a letter

P1

-- Check if a number is a palindrome --

n (int), original (int), reversed (int), remainder (int)

print("Enter a number: ")

read(n)

original = n

reversed = 0

while n > 0 {

 remainder = n % 10

 reversed = reversed * 10 + remainder

 n = n / 10

}

if original == reversed {

 print("The number is a palindrome.")

} else {

 print("The number is not a palindrome.")

}

P2

-- Sum of n numbers --

n (int), number (int)

print("How many numbers do you want to sum?\n")

read(n)

```

sum (int) = 0
index (int) = 1
while index <= n {
    read(number)
    sum = sum + number;
}
print("The sum is")
print(sum)

```

P3

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-- Base 10 to Base 2 Conversion --
n (int), remainder (int), binary (int), factor (int)
print("Enter a number in base 10: ")
read(n)
binary = 0
factor = 1
while n > 0 {
    remainder = n % 2;
    binary = binary + remainder * factor;
    n = n / 2;
    factor = factor * 10;
}
print("The binary equivalent is: ")
print(binary)

```

P1 error

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-- Min of 3 numbers --
a (int), 2b (int), c (int) -- a variable name should start with _ or a
letter
read(a); -- lines of code don't use ';'
read(b)
read(c)
smallest (int) = a
if smallest > b {

```

```
        smallest = b
    }
    if smallest > c {
        smallest = c
    }
    print(smallest)
```