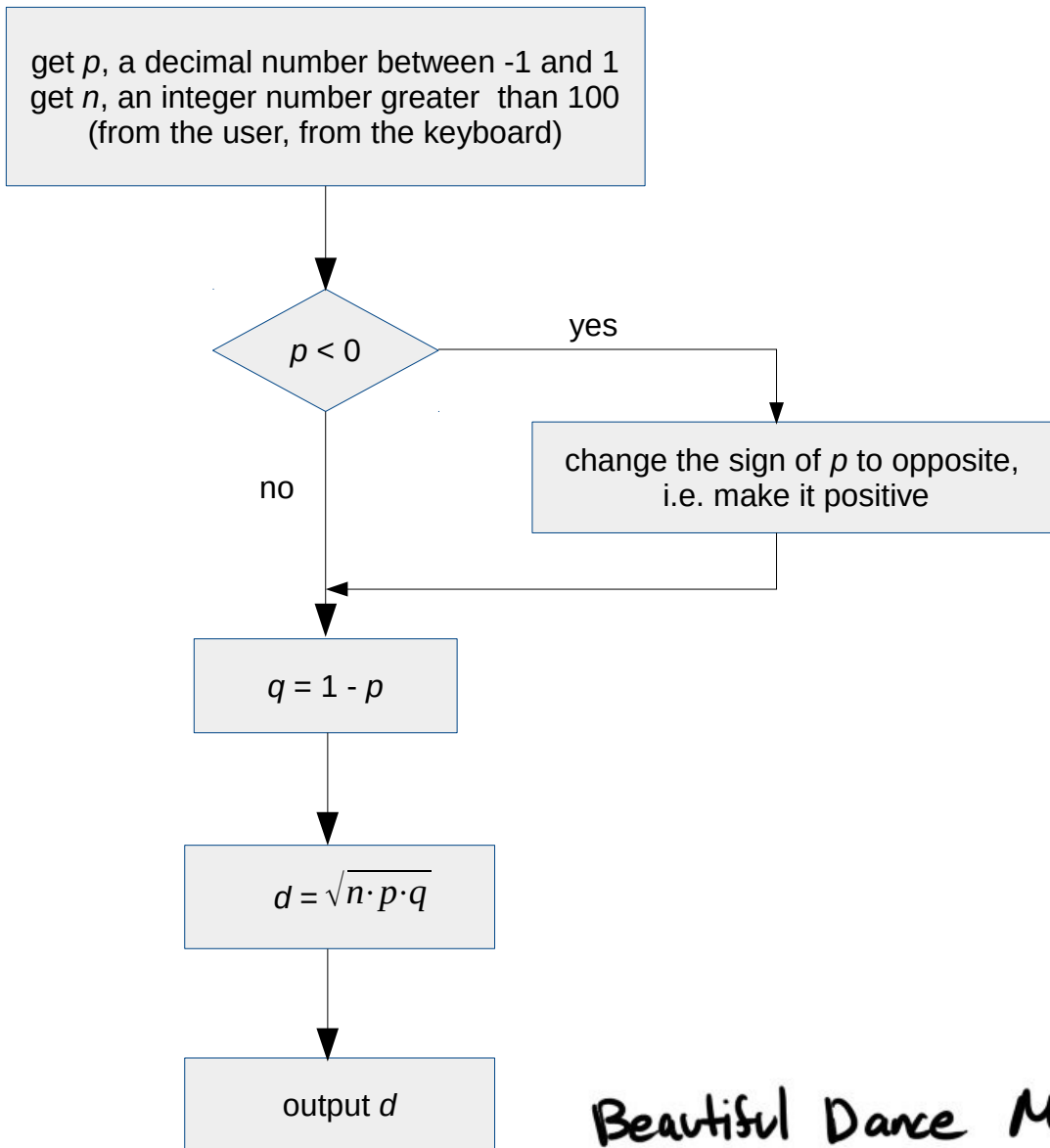**CSI31** **Lecture 7** **In-class assignment**

1. Consider the following code. What sum does it generate?

```
n = int(input("Enter a positive integer:"))

s = 0
for i in range(0,n):
    s = s + ((-1)**i)/(i+1)

print(s)
```

2. for the following program, draw the *flowchart* corresponding to it

```
a = int(input("Enter an integer:"))

if a > 4:
    print("A")
elif a < -4:
    print("B")
else:
    print("C")

print(a)
```

3. Given the flowchart, write the program.

get p, a decimal number between -1 and 1
get n, an integer number greater than 100
(from the user, from the keyboard)

$p < 0$

yes

no

change the sign of p to opposite,
i.e. make it positive

$q = 1 - p$

$d = \sqrt{n \cdot p \cdot q}$

output d

Run the program you got on two inputs:

1) p=0.5, n=200
You should get 7.0710678118654755

2) p=-0.9, n=400
You should get 5.999999999999999

Beautiful Dance Moves

$\sin(x)$ $\cos(x)$ $\tan(x)$ $\cot(x)$

$|x|$ x x^2 x^2+y^2

$\sqrt{x}$ $\sqrt{-x}$ $\frac{1}{x}$ crap.