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Lab 1
Zagrodzki; CSCI 1320-112

Lab 1 – Calculator +

Task 1)

Sample Run 1:

Input A: 4

Input B: 6

$4.0 + 6.0 = 10.0$

$4.0 - 6.0 = -2.0$

$4.0 * 6.0 = 24.0$

$4.0 / 6.0 = 0.7$

$4.0 ^ 6.0 = 4096.0$

Sample Run 2:

Input A: 3

Input B: 2

$3.0 + 2.0 = 5.0$

$3.0 - 2.0 = 1.0$

$3.0 * 2.0 = 6.0$

$3.0 / 2.0 = 1.5$

$3.0 ^ 2.0 = 9.0$

Task 2)

Description	Inputs	Expected Outputs
Normal cases		
two positive numbers	15, 7	22, 8, 105, 2.14285714285714, 170859375
two negative numbers	-8, -123	-131, 115, 984, 0.0650406504065041, -8.3163278125159E-112
one positive and one negative number	5, -20	-15, 25, -100, -0.25, 1.048576E-14
two positive numbers both with fractions	4.5, 9.2	13.7, -4.7, 41.4, 0.489130434782609, 1022245.31004515
one positive and one negative number both with fractions	3.2, -4.5	-1.3, 7.7, -14.4, -0.711111111111111, 0.00533120149970005
one whole number and one number with fraction	4, 3.2	7.2, 0.8, 12.8, 1.25, 84.4485062894652
Error case for zero		
first number is zero, second is zero	0, 0	0, 0, 0, NaN, 1

first number is zero, second is not zero	0, 5	5, -5, 0, 0, 0
first number is not zero, second number is zero	5, 0	5, 5, 0, Inf, 1
Special input case of one		
first number is one, second number is not one	1, 5	6, -4, 5, 0.2, 1
first number is not one, second number is one	5, 1	6, 4, 5, 5, 5
Causing one of results to be zero without inputs being zero		
first number equals second number	5, 5	10, 0, 25, 1, 3125

Task 3)

- 1) Input First Number, Store as variable "A"
- 2) Input Second Number, Store as variable "B"
- 3) Add A and B, Store as variable "addition"
- 4) Subtract A and B, Store as variable "subtraction"
- 5) Multiply A and B, Store as variable "multiplication"
- 6) Divide A by B, Store as variable "division"
- 7) Raise A to the power of B, Store as variable "power"

- 8) Print results of functions, float 1