```python
# Joshua Pitts-Torres
# This code will help the users solve some formulas
# This will allow you to do the square root function
import math

# These are the values of A, B, and C in the equation
print("Hello user, Today were going to be doing a few equations!")
print("Up first is the Quadratic Formula!")
valueA = int(input("Enter the number for a: "))
valueB = int(input("Enter the number for b: "))
valueC = int(input("Enter the number for c: "))
# This equation squares the value B
squareB = valueB ** 2
# This is the inside equation
# of the formula
x = squareB - (4 * valueA * valueC)
# This equation is numerator
# of the positive equation
pos_equation = -valueB + (math.sqrt(x))
# This code continues the positive
# equation by dividing it by 2a
pos_equation1 = pos_equation / (2 * valueA)
print(pos_equation1, end=" ")
# This is the start of the negative
# equation since there is 2 parts to the formula
neg_equation = -valueB - (math.sqrt(x))
# This code continues the negative
# equation by dividing it by 2a
neg_equation1 = neg_equation / (2 * valueA)
print(neg_equation)
print("The answers to your quadratic equation is: ", pos_equation1, "and ",
      neg_equation)
choice = input("Would you like to find the distance between two points? y/n")
if choice == "y":
    x = int(input("Choose your first x coordinate: "))
    y = int(input("Choose your first y coordinate: "))
    x1 = int(input("Choose your second x coordinate: "))
    y1 = int(input("Choose your second y coordinate: "))
    x_part = (x1 - x) ** 2
    y_part = (y1 - y) ** 2
    inside_of_sqrt = x_part + y_part
    final_formula = math.sqrt(inside_of_sqrt)
    print("The distance between the two point is:", final_formula, "units.")

choice2 = input("Would you like to complete the square? ")
if choice2 == " y":
    a = int(input("Enter a number: "))
    b = int(input("Enter a number: "))
    c = int(input("Enter a number: "))
    findA = input("Are you missing A? y/n: ")
    findB = input("Are you missing B? y/n: ")
    findC = input("Are you missing C? y/n: ")
    if findA == "y":  # This is if you're trying to find A in the equation
        A = math.sqrt((c ** 2) - (b ** 2))
        print("The value of A =", A)
    elif findB == "y":  # This is if you're trying to find B in the equation
        B = math.sqrt((c ** 2) - (a ** 2))
        print("The value of B =", B)
    elif findC == "y":  # This is if you're trying to find C in the equation
        C = math.sqrt((a ** 2) + (b ** 2))
        print("The value of C =", C)
# This code is when i learned how to use the while loop
x = 0
total = 0
while x < 10:
```

```
    num = int(input())
    x += 1
    total = total + num
    if x == 10:
        print(total)
num = 1
total = 0
x = 0
while num > 0 or num < 0:
    num = int(input())
    total = num + total
    x = x + 1
if num == 0:
    x = x - 1
    avg = total / x
    print(avg)

# This code is when I learned how to use the For loop
for i in range(1, (int(input())) + 1):
    print('\n')
    for j in range(1, i + 1):
        print(j, end='')
n = int(input())
total = 0

for y in range(n):
    x = int(input())
    if x == 0:
        total += 1

print(total)
# This code is when i learned how to use boolean statements
num1 = int(input())
num2 = int(input())
if num1 == num2:
    print("True")
else:
    print("False")

time = int(input())
maxTime = int(input())
cost = int(input())
maxCost = int(input())
if time < maxTime:
    print("True")
else:
    print("False")

# if(cost< maxCost):
#  print("True")
# else:
#  print("False")

weight = int(input())
cost = float(input())
if weight < 10 and cost <= 20.00:
    print("True")
else:
    print("False")


# This is when i learned to calculate the rice of a pizza based on its size
def get_smallest(first_num, second_num):
    if first_num < second_num:
        return 1
```

```
    elif first_num > second_num:
        return 2
    else:
        return 0


def main():
    # INTRODUCTION
    print(
        "This program will tell you the best value for your dollar at dinner.")

    # INPUT
    medium_cost_per_sq_inch = .11
    large_cost_per_sq_inch = .08

    # PROCESSING
    best_pizza_value_code = get_smallest(medium_cost_per_sq_inch,
                                         large_cost_per_sq_inch)

    # OUTPUT
    if best_pizza_value_code == 1:
        print("The best value for your money is the medium pizza.")
    else:
        print("The best value for your money is the large pizza.")
```