**Title: BMI Calculator**

1. **Introduction**

The formula for body mass index (BMI) is weight in kilograms divided by height in meters squared.

BMI=weight(kg)/height(m)2

Explanation

* BMI is a measurement of body weight relative to height.
* It's a useful tool for identifying obesity and being overweight in a population.
* However, BMI doesn't necessarily reflect body fat distribution or the same degree of fatness in different people.

1. **Write a Python Program**

# Function to calculate BMI

def calculate\_bmi(weight, height):

# BMI formula

bmi = weight / (height \*\* 2)

return bmi

# Function to determine BMI category

def bmi\_category(bmi):

if bmi < 18.5:

return "Underweight"

elif 18.5 <= bmi < 24.9:

return "Normal weight"

elif 25 <= bmi < 29.9:

return "Overweight"

else:

return "Obesity"

# Main function

def main():

print("Welcome to the BMI Calculator!")

# Get user input for weight and height

weight = float(input("Enter your weight in kilograms: "))

height = float(input("Enter your height in meters: "))

# Calculate BMI

bmi = calculate\_bmi(weight, height)

# Determine BMI category

category = bmi\_category(bmi)

# Display results

print(f"Your BMI is: {bmi:.2f}")

print(f"You are categorized as: {category}")

# Run the program

if \_\_name\_\_ == "\_\_main\_\_":

main()

1. **Output:**

Welcome to the BMI Calculator!

Enter your weight in kilograms: 68

Enter your height in meters: 1.7

Your BMI is: 23.53

You are categorized as: Normal weight