```
#c) Invalid as n4,n5,n6 arent defined.
#d) valid
#e) invalid as n5 ,n4 arent defined.
```

---

**#1) a) types() that prints a given value both as a float and an integer.**

```
def types(num):
    print(float(num))
    print(int(num))

types(8)


8.0
8
```

---

**#b) squared( ) that take an integer and returns the value squared.**

```
def squared(num):
    return num*num

print(squared(5))


25
```

---

**#c) int_to_string( ) that takes an integer value and returns it as a string.**

```
def int_to_string(num):
    return str(num)
print(int_to_string(69))


69
```

---

**#d) hello_world( ) that takes a parameter name and displays the following output to the console, "Hello World, my name is name".**

```
def hello_world(name):
    print(f"Hello world, my name is {name}")

hello_world("zed")

Hello world, my name is zed
```

---

**#e) improved_average( ) that takes five integer parameters, It should return the mode, median and mean values of the numbers passed to the function.**

```
from statistics import mode, median, mean
def improved_average(*args):
    return f"Mode: {mode(args)}, Median: {median(args)}, Mean: {mean(args)}"

print(improved_average(69,420,69,420,69))


Mode: 69, Median: 69, Mean: 209.4
```

---

**# Part 3 # 1) Create a function that prompts the user for two integer values and displays the results of the first number divided by the second to two decimal places.**

```
def divide():
    a,b = [int(x) for x in input("Enter 2 numbers with spaces: ").split()]
    print(format(a/b,".2f"))

divide()


Enter 2 numbers with spaces: 59 69
0.86
```

---

**# 2) Create a Python program called calculator with functions to perform the following arithmetic calculations, each should take two decimal parameters and return the result of the arithmetic calculation in question (add,substract,divide,multiply,modulo,exponent).**

```
def add(a,b):
    return a+b;
```

```python
def multiply(a,b):
    return a*b;

def divide(a,b):
    return a/b;

def modulo(a,b):
    return a%b;

def exponent(a,b):
    """
    returns a raised to the power b

    Parameters:
    a (int): a.
    b (int): a^b.

    Returns:
    int: The result of raising a to the power of b.
    """
    return a**b;

# ... eval(input("Enter mathematical operation: "))

"""
help(exponent)
Help on function exponent in module __main__:

exponent(a, b)
    returns a raised to the power b

    Parameters:
    a (int): a.
    b (int): a^b.

    Returns:
    int: The result of raising a to the power of b.
(END)
"""
```

---

```python
def calculateMarks():
    scores = [int(x) for x in input("Enter marks in 5 subjects (with spaces): ").split()]
    print(f"Your total score is {sum(scores)} and the maximum possible score was 500.")
    print(f"Obtained Percentage: {format(((sum(scores)/500)*100),'.2f')}%")
```

```
calculateMarks()

Enter marks in 5 subjects (with spaces): 55          100 55 288          18 69 69
Your total score is 311 and the maximum possible score was 500.
Obtained Percentage: 62.20%
```