Jawaban soal python test (Arik Bagus Setyawan)

1. Digital Root

```
def digitalroot(number:int):
# turn number into a list of digits
list_of_numbers = [int(i) for i in str(number)]
# sum the digits
sum_of_digits = sum(list_of_numbers)

# turn sum_of_digits into a list of digits again
list_of_numbers = [int(i) for i in str(sum_of_digits)]

# if length of list_of_numbers is 1, return the first element.
else execute this function with sum of list_of_numbers
if len(list_of_numbers) == 1:
print(list_of_numbers[0])
return list_of_numbers[0]
else:
digitalroot(sum(list_of_numbers))

inputan = input("Masukkan angka: ")
digitalroot(inputan)
```

2. Stocks

```
def addStock(list_of_stock:list, list_of_new_stock:list):
for new_stock in list_of_new_stock:
already_in_stock = False
for index,stock in enumerate(list_of_stock):
if stock[1] == new_stock[1]:
# convert list_of stock with that index into a list
new_stock = list(list_of_stock[index])
new_stock[0] += new_stock[0]
# convert new_stock into tuple
new_stock = tuple(new_stock)
# replace list_of_stock with new_stock
list_of_stock[index] = new_stock
already_in_stock = True
if not already_in_stock:
list_of_stock.append(new_stock)
```

```
# sort list_of_stock by second data of tuple
list_of_stock.sort(key=lambda x:x[1])
return list_of_stock

stocks = [(25, 'HTC'), (1000, 'Nokia'), (50, 'Samsung'), (33,
'Sony'), (10, 'Apple')]
new_stock = [(5, 'LG'), (10, 'Sony'), (4, 'Samsung'), (5,
'Apple')]

print(addStock(stocks,new_stock))
```

3. Leap Year

```
import datetime
def getDays(number_of_days:int, kabisat:bool=False):
# get first date of this year
fist_date = datetime.datetime.strptime('01/01/2023', '%d/%m/%Y')
# add number_of days to first date
second_date = fist_date +
datetime.timedelta(days=number_of_days)

# format second_date to full month name and day
formatted_return = f"{second_date.strftime('%B')},
{second_date.strftime('%d')}# Adalah hari ke {number_of_days}
dari {'bukan' if not kabisat else ''} tahun kabisat"
return formatted_return


print(getDays(366,True))
```

4. Output of executed class

1. go A go!
2. go C go!
3. go B go!
4. go D go!

5. Difference between list and tuple

Tuple: object yang sudah konstan dan tidak dapat diubah.
List: object yang isinya dapat diubah sesuai selera.