Entrée [1]:

```
#exercice1
import pandas as pd

df = pd.DataFrame([
    {'product_id': 23, 'name': 'Computer', 'wholesale_price': 500,
         'retail_price': 1000, 'sales': 100},

    {'product_id': 96, 'name': 'Python Cours', 'wholesale_price': 35,
         'retail_price': 75, 'sales': 1000},

     {'product_id': 97, 'name': 'Python Cours', 'wholesale_price': 35,
         'retail_price': 75, 'sales': 500},

     {'product_id': 15, 'name': 'Banana', 'wholesale_price': 0.5,
         'retail_price': 1, 'sales': 200},

     {'product_id': 87, 'name': 'Sandwich', 'wholesale_price': 3,
         'retail_price': 5, 'sales': 300},
])

df
```

Out[1]:

	product_id	name	wholesale_price	retail_price	sales
0	23	Computer	500.0	1000	100
1	96	Python Cours	35.0	75	1000
2	97	Python Cours	35.0	75	500
3	15	Banana	0.5	1	200
4	87	Sandwich	3.0	5	300

Entrée [2]:

```
#calculer le revenue totale
((df['retail_price'] - df['wholesale_price']) * df['sales']).sum()
```

Out[2]:

```
110700.0
```

Entrée [3]:

```
df['current_net'] = [50000.0, 40000.0, 20000.0, 100.0, 600.00]


df
```

Out[3]:

	product_id	name	wholesale_price	retail_price	sales	current_net
0	23	Computer	500.0	1000	100	50000.0
1	96	Python Cours	35.0	75	1000	40000.0
2	97	Python Cours	35.0	75	500	20000.0
3	15	Banana	0.5	1	200	100.0
4	87	Sandwich	3.0	5	300	600.0

Entrée [4]:

```
df['after_15'] = df['current_net'] * 0.85
```

Entrée [5]:

```
df
```

Out[5]:

	product_id	name	wholesale_price	retail_price	sales	current_net	after_15
0	23	Computer	500.0	1000	100	50000.0	42500.0
1	96	Python Cours	35.0	75	1000	40000.0	34000.0
2	97	Python Cours	35.0	75	500	20000.0	17000.0
3	15	Banana	0.5	1	200	100.0	85.0
4	87	Sandwich	3.0	5	300	600.0	510.0

Entrée [6]:

```
df['after_25'] = df['current_net'] * 0.75
df
```

Out[6]:

	product_id	name	wholesale_price	retail_price	sales	current_net	after_15	after_25
0	23	Computer	500.0	1000	100	50000.0	42500.0	37500.0
1	96	Python Cours	35.0	75	1000	40000.0	34000.0	30000.0
2	97	Python Cours	35.0	75	500	20000.0	17000.0	15000.0
3	15	Banana	0.5	1	200	100.0	85.0	75.0
4	87	Sandwich	3.0	5	300	600.0	510.0	450.0

Entrée [7]:

```
df['after_20'] = df['current_net'] * 0.80
df
```

Out[7]:

	product_id	name	wholesale_price	retail_price	sales	current_net	after_15	after_25
0	23	Computer	500.0	1000	100	50000.0	42500.0	37500.0
1	96	Python Cours	35.0	75	1000	40000.0	34000.0	30000.0
2	97	Python Cours	35.0	75	500	20000.0	17000.0	15000.0
3	15	Banana	0.5	1	200	100.0	85.0	75.0
4	87	Sandwich	3.0	5	300	600.0	510.0	450.0

Entrée [9]:

```
#choisir 4 aolonne ajouté
df[['current_net', 'after_15', 'after_25', 'after_20']]
```

Out[9]:

	current_net	after_15	after_25	after_20
0	50000.0	42500.0	37500.0	40000.0
1	40000.0	34000.0	30000.0	32000.0
2	20000.0	17000.0	15000.0	16000.0
3	100.0	85.0	75.0	80.0
4	600.0	510.0	450.0	480.0

Entrée [11]:

```
df['current_net'].sum() - df[['current_net', 'after_15', 'after_25', 'after_20']].sum()
```

Out[11]:

```
current_net        0.0
after_15       16605.0
after_25       27675.0
after_20       22140.0
dtype: float64
```

Entrée [ ]:

```

```