In [2]:

```
import numpy as np
import pandas as pd
df=pd.read_csv(r"C:\Users\gwptr\Documents\book1thu15.csv")
df
```

Out[2]:

	slno	pens	notebook	textbook	drawing sheet	totalunits	total profits
0	1	2	5	11	22	100	2
1	2	4	10	12	18	200	3
2	3	8	15	13	16	300	4
3	4	6	20	14	17	400	5
4	5	10	25	18	14	500	6
5	6	12	30	13	13	600	7
6	7	14	35	12	10	700	8
7	8	16	40	11	5	800	9
8	9	18	45	1	7	900	10
9	10	19	50	4	3	1000	11
10	11	20	55	9	12	10	12

In [ ]:

```

```

In [ ]:

```

```

In [ ]:

```

```

In [3]:

```
#stistical information
df.describe()
```

Out[3]:

	slno	pens	notebook	textbook	drawing sheet	totalunits	total profits
count	11.000000	11.000000	11.000000	11.000000	11.000000	11.000000	11.000000
mean	6.000000	11.727273	30.000000	10.727273	12.454545	500.909091	7.000000
std	3.316625	6.230424	16.583124	4.692354	5.820028	330.165248	3.316625
min	1.000000	2.000000	5.000000	1.000000	3.000000	10.000000	2.000000
25%	3.500000	7.000000	17.500000	10.000000	8.500000	250.000000	4.500000
50%	6.000000	12.000000	30.000000	12.000000	13.000000	500.000000	7.000000
75%	8.500000	17.000000	42.500000	13.000000	16.500000	750.000000	9.500000
max	11.000000	20.000000	55.000000	18.000000	22.000000	1000.000000	12.000000

In [4]:

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 11 entries, 0 to 10
Data columns (total 7 columns):
 #   Column         Non-Null Count  Dtype
---  ------         --------------  -----
 0   slno           11 non-null     int64
 1   pens           11 non-null     int64
 2   notebook       11 non-null     int64
 3   textbook       11 non-null     int64
 4   drawing sheet  11 non-null     int64
 5   totalunits     11 non-null     int64
 6   total profits  11 non-null     int64
dtypes: int64(7)
memory usage: 744.0 bytes
```

In [5]:

```
#first five rows
df.head()
```

Out[5]:

	slno	pens	notebook	textbook	drawing sheet	totalunits	total profits
0	1	2	5	11	22	100	2
1	2	4	10	12	18	200	3
2	3	8	15	13	16	300	4
3	4	6	20	14	17	400	5
4	5	10	25	18	14	500	6

In [6]:

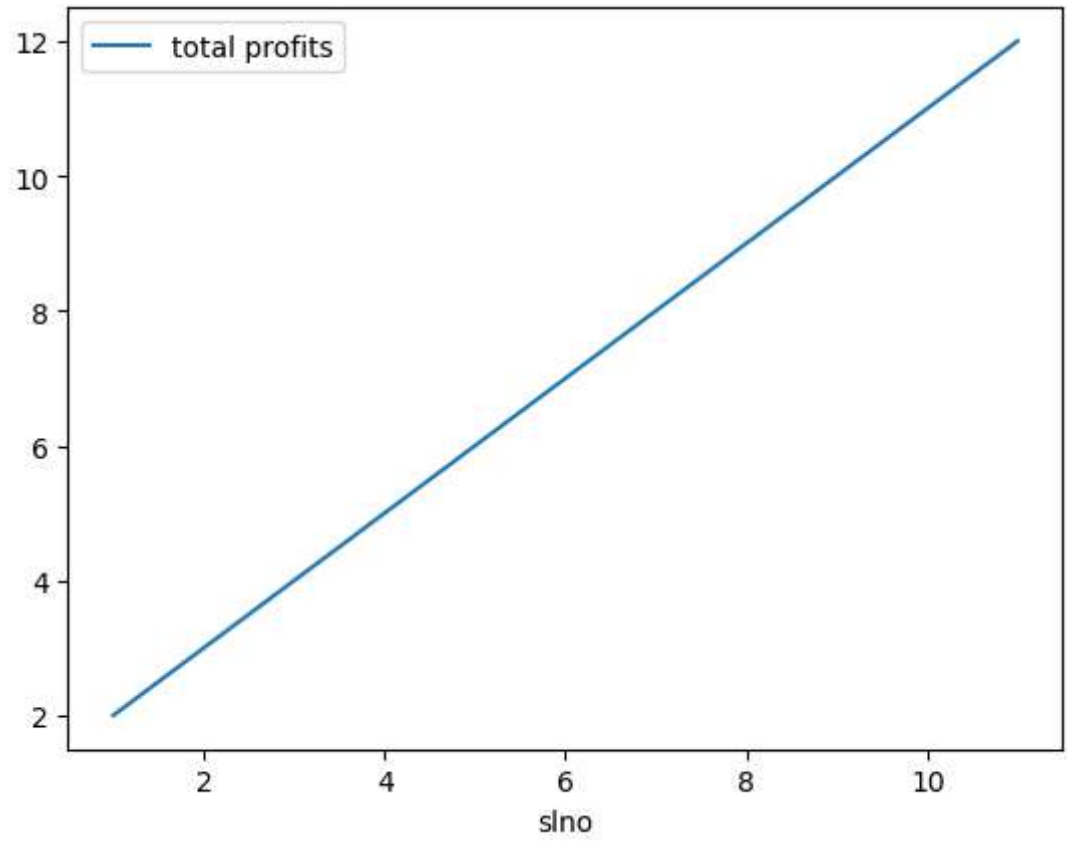
```
#last fiverows
df.tail()
```

Out[6]:

	slno	pens	notebook	textbook	drawing sheet	totalunits	total profits
6	7	14	35	12	10	700	8
7	8	16	40	11	5	800	9
8	9	18	45	1	7	900	10
9	10	19	50	4	3	1000	11
10	11	20	55	9	12	10	12

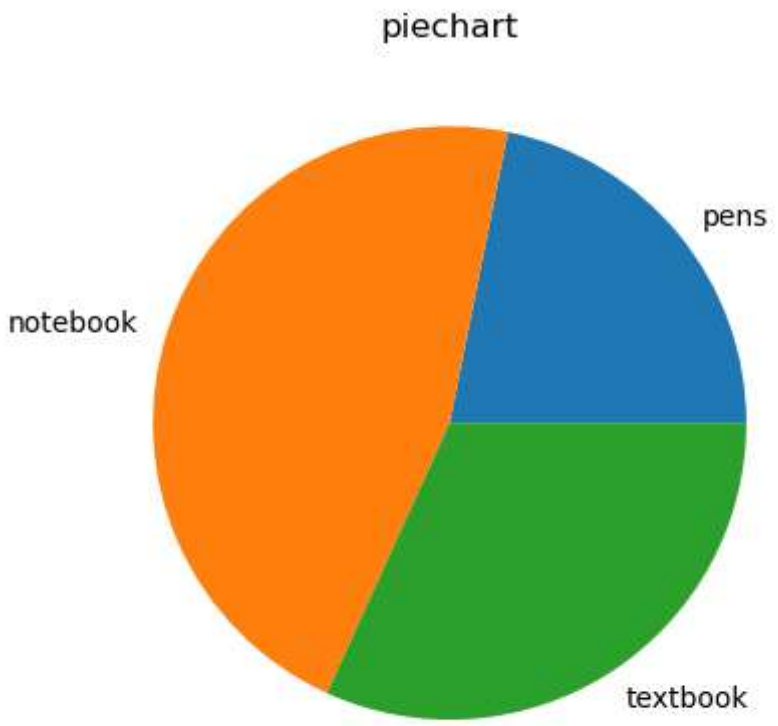
In [10]:

```
#Line graph
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
df=pd.read_csv(r"C:\Users\gwptr\Documents\book1thu15.csv")
df
df.plot(x="slno",y="total profits")
plt.show()
```



In [22]:

```
#piechart
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
pens=[2,4,8,10,12,14,16]
notebook=[5,10,15,20,25,30,35]
textbook=[11,12,13,14,15,18,13]
slieces=[sum(pens),sum(notebook),sum(textbook)]
tasks=["pens","notebook","textbook"]
plt.title("piechart")
plt.pie(slieces,labels=tasks)
plt.show()
```



In [ ]:

In [ ]: