In [6]:

```
import matplotlib.pyplot as plt
x = [6,8,12,14,18]
y = [350,775,1150,1395,1675]
x_mean = []
y_mean = []
xy = []
xx = []
for i in range(5):
    item = x[i]*y[i]
    xy.append(item)
print(xy)
```

```
[2100, 6200, 13800, 19530, 30150]
```

In [7]:

```
x_mean = sum(x)/len(x)
y_mean = sum(y)/len(y)
xy_mean = sum(xy)/len(xy)
x_mean_square = x_mean*x_mean
print(x_mean)
print(y_mean)
print(xy_mean)
print(x_mean_square)
for i in range(5):
    item = x[i]*x[i]
    xx.append(item)
xx_mean = sum(xx)/len(xx)
print(xx_mean)
```

```
11.6
1069.0
14356.0
134.56
152.8
```

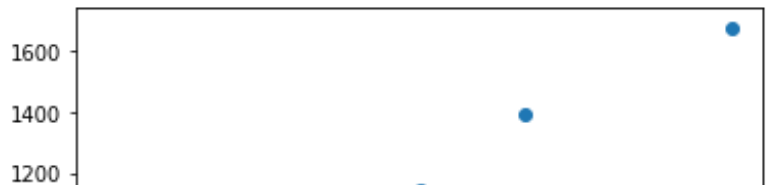
In [12]:

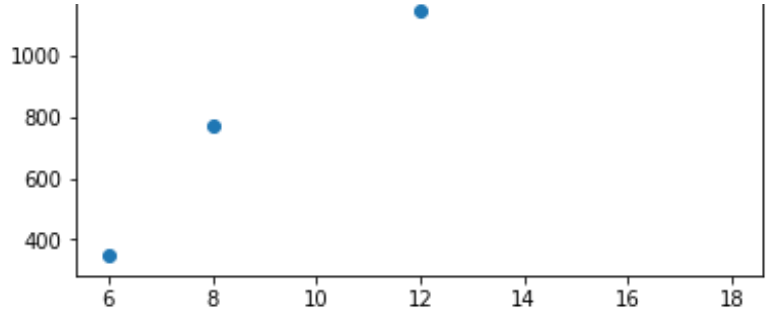
```
m = ((x_mean*y_mean)-xy_mean)/(x_mean_square-xx_mean)
c = y_mean-(x_mean*m)
print(m)
print(c)
```

```
107.21491228070172
-174.69298245614004
```

In [17]:

```
plt.scatter(x,y)
plt.show()
```





In [19]:

```
y_new = []
plt.scatter(x,y)
for i in range(5):
    item = (m*x[i])+c
    y_new.append(item)
plt.plot(x,y_new)
plt.show()
```