```
1  import numpy as np
2  import pandas as pd
```

```
1  x = np.array([1, 3, 4, 7])
2  y = np.array([50, 65, 60, 63])
```

(1) 基于Numpy数组计算皮尔逊相关系数

```
1  np.sum((x - x.mean())*(y-y.mean())) / (np.sqrt(np.sum((x-
   x.mean())**2))*np.sqrt(np.sum((y-y.mean())**2)))
```

```
1  0.6708390735911568
```

(2) 基于pandas的corr方法计算皮尔逊相关系数

```
1  df = pd.DataFrame({'x': x, 'y': y})
2  df.x.corr(df.y)
```

```
1  0.6708390735911569
```