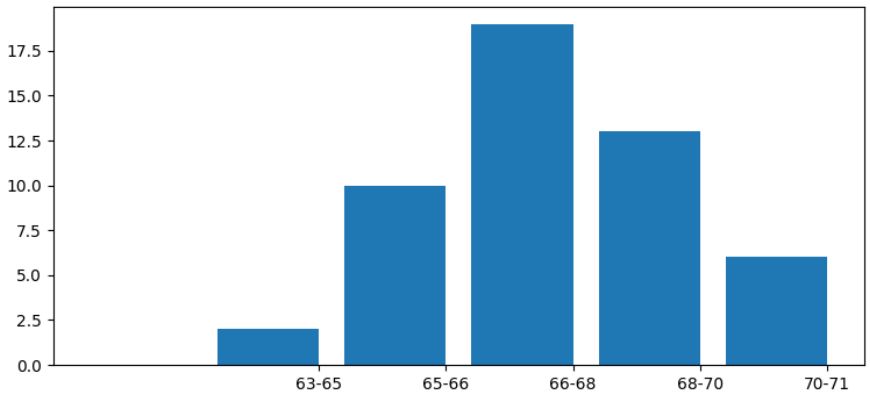
Programming Charts

Plot Height

```
#Plot a histogram of Height using the histplot function
from plotting import *

Height=[65.78, 71.52, 69.4, 68.22, 67.79, 68.7, 69.8, 70.01, 67.9, 66.78,
 66.49, 67.62, 68.3, 67.12, 68.28, 71.09, 66.46, 68.65, 71.23, 67.13, 67.83,
68.88, 63.48, 68.42, 67.63, 67.21, 70.84, 67.49, 66.53, 65.44, 69.52, 65.81,
67.82, 70.6, 71.8, 69.21, 66.8, 67.66, 67.81, 64.05, 68.57, 65.18, 69.66, 67.97,
65.98, 68.67, 66.88, 67.7, 69.82, 69.09]
Weight=[112.99, 136.49, 153.03, 142.34, 144.3, 123.3, 141.49, 136.46,
112.37, 120.67, 127.45, 114.14, 125.61, 122.46, 116.09, 140.0, 129.5, 142.97,
137.9, 124.04, 141.28, 143.54, 97.9, 129.5, 141.85, 129.72, 142.42, 131.55,
108.33, 113.89, 103.3, 120.75, 125.79, 136.22, 140.1, 128.75, 141.8, 121.23,
131.35, 106.71, 124.36, 124.86, 139.67, 137.37, 106.45, 128.76, 145.68, 116.82,
143.62, 134.93]

#Insert your code on the next line
histplot(Height)
```



Most Common Height:

For our data set, what is the most frequent height?

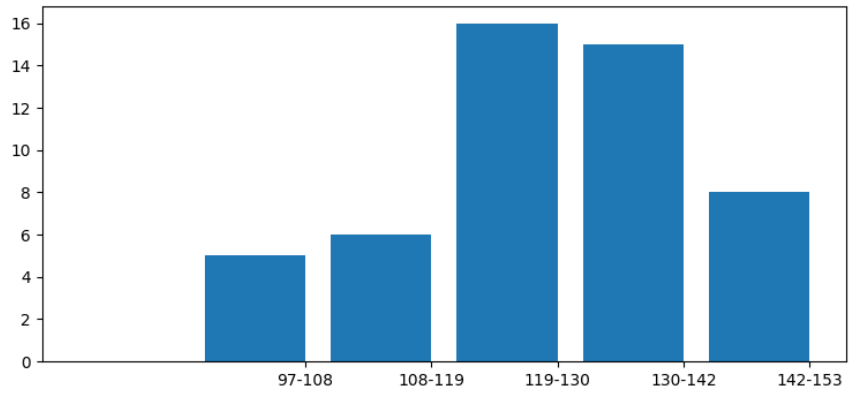
Answer: 66-68

Plot Weight

```
#Make a histogram of Weight using the histplot function
from plotting import *

Height=[65.78, 71.52, 69.4, 68.22, 67.79, 68.7, 69.8, 70.01, 67.9, 66.78,
 66.49, 67.62, 68.3, 67.12, 68.28, 71.09, 66.46, 68.65, 71.23, 67.13, 67.83,
68.88, 63.48, 68.42, 67.63, 67.21, 70.84, 67.49, 66.53, 65.44, 69.52, 65.81,
67.82, 70.6, 71.8, 69.21, 66.8, 67.66, 67.81, 64.05, 68.57, 65.18, 69.66, 67.97,
65.98, 68.67, 66.88, 67.7, 69.82, 69.09]
Weight=[112.99, 136.49, 153.03, 142.34, 144.3, 123.3, 141.49, 136.46,
112.37, 120.67, 127.45, 114.14, 125.61, 122.46, 116.09, 140.0, 129.5, 142.97,
137.9, 124.04, 141.28, 143.54, 97.9, 129.5, 141.85, 129.72, 142.42, 131.55,
108.33, 113.89, 103.3, 120.75, 125.79, 136.22, 140.1, 128.75, 141.8, 121.23,
131.35, 106.71, 124.36, 124.86, 139.67, 137.37, 106.45, 128.76, 145.68, 116.82,
143.62, 134.93]

#Insert your code on the next line
histplot(Weight)
```



Most Common Weight

What is the most frequent height?

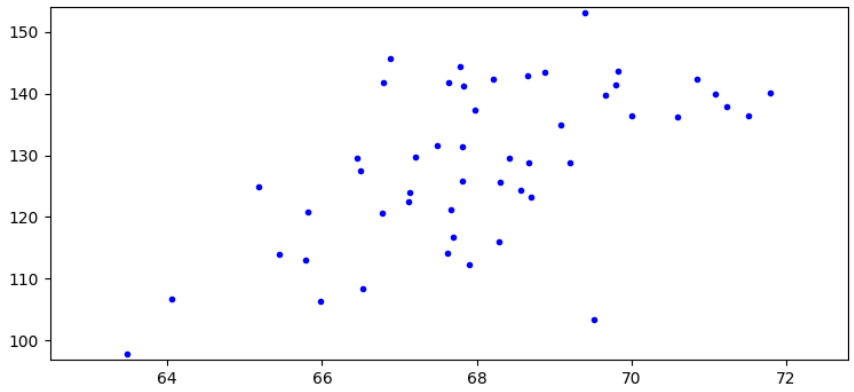
Answer: 119-130

Scatterplot

```
#Build a scatterplot of Height vs. Weight using the scatterplot function
from plotting import *

Height=[65.78, 71.52, 69.4, 68.22, 67.79, 68.7, 69.8, 70.01, 67.9, 66.78,
 66.49, 67.62, 68.3, 67.12, 68.28, 71.09, 66.46, 68.65, 71.23, 67.13, 67.83,
68.88, 63.48, 68.42, 67.63, 67.21, 70.84, 67.49, 66.53, 65.44, 69.52, 65.81,
67.82, 70.6, 71.8, 69.21, 66.8, 67.66, 67.81, 64.05, 68.57, 65.18, 69.66, 67.97,
65.98, 68.67, 66.88, 67.7, 69.82, 69.09]
Weight=[112.99, 136.49, 153.03, 142.34, 144.3, 123.3, 141.49, 136.46,
112.37, 120.67, 127.45, 114.14, 125.61, 122.46, 116.09, 140.0, 129.5, 142.97,
137.9, 124.04, 141.28, 143.54, 97.9, 129.5, 141.85, 129.72, 142.42, 131.55,
108.33, 113.89, 103.3, 120.75, 125.79, 136.22, 140.1, 128.75, 141.8, 121.23,
131.35, 106.71, 124.36, 124.86, 139.67, 137.37, 106.45, 128.76, 145.68, 116.82,
143.62, 134.93]

#Insert your code on the next line
scatterplot(Height,Weight)
```



Height Vs Weight

Is this data exactly linear, approximately linear or Height and Weight unrelated?

Answer: approximately linear

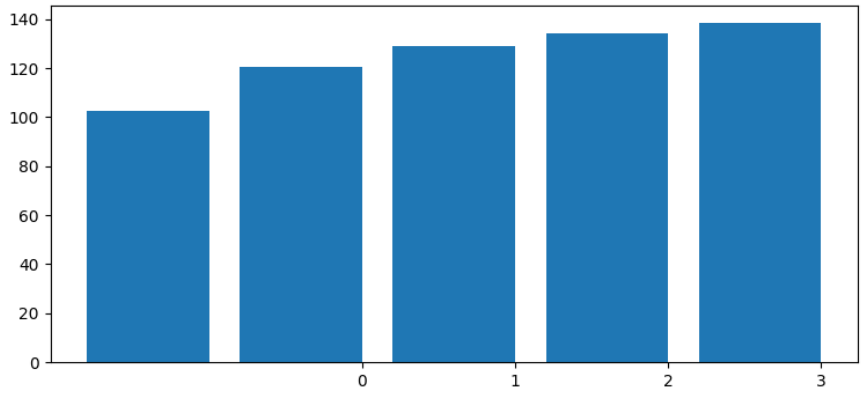
Barchart

```
#Write a line of code to produce a barchart of Weight by groups of Height
#using the barchart function

from plotting import *

Height=[65.78, 71.52, 69.4, 68.22, 67.79, 68.7, 69.8, 70.01, 67.9, 66.78,
 66.49, 67.62, 68.3, 67.12, 68.28, 71.09, 66.46, 68.65, 71.23, 67.13, 67.83,
68.88, 63.48, 68.42, 67.63, 67.21, 70.84, 67.49, 66.53, 65.44, 69.52, 65.81,
67.82, 70.6, 71.8, 69.21, 66.8, 67.66, 67.81, 64.05, 68.57, 65.18, 69.66, 67.97,
65.98, 68.67, 66.88, 67.7, 69.82, 69.09]
Weight=[112.99, 136.49, 153.03, 142.34, 144.3, 123.3, 141.49, 136.46,
112.37, 120.67, 127.45, 114.14, 125.61, 122.46, 116.09, 140.0, 129.5, 142.97,
137.9, 124.04, 141.28, 143.54, 97.9, 129.5, 141.85, 129.72, 142.42, 131.55,
108.33, 113.89, 103.3, 120.75, 125.79, 136.22, 140.1, 128.75, 141.8, 121.23,
131.35, 106.71, 124.36, 124.86, 139.67, 137.37, 106.45, 128.76, 145.68, 116.82,
143.62, 134.93]

#Insert your code on the next line
barchart(Height, Weight)
```



Wages

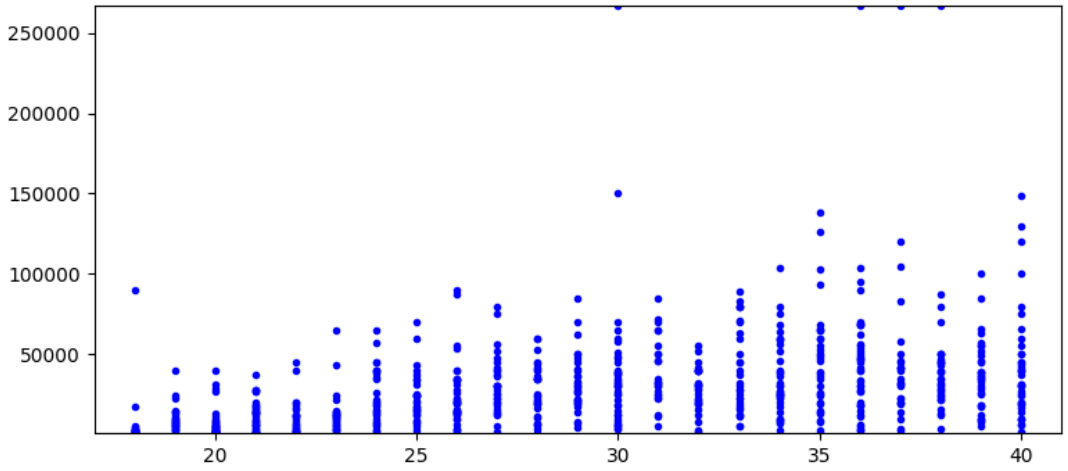
```
#Write a line of code to print a scatterplot of Age on the horizontal axis
#against Wage on the vertical axis

from plotting import *

Age=[25, 26, 33, 29, 27, 21, 26, 35, 21, 37, 21, 38, 18, 19, 36, 30, 29, 24, 24,

Wage=[17000, 13000, 28000, 45000, 28000, 1200, 15500, 26400, 14000, 35000, 16400

#Insert your code on the next line
scatterplot(Age, Wage)
```



High Earner

What is the youngest person to earn $267,000?

Answer: 30

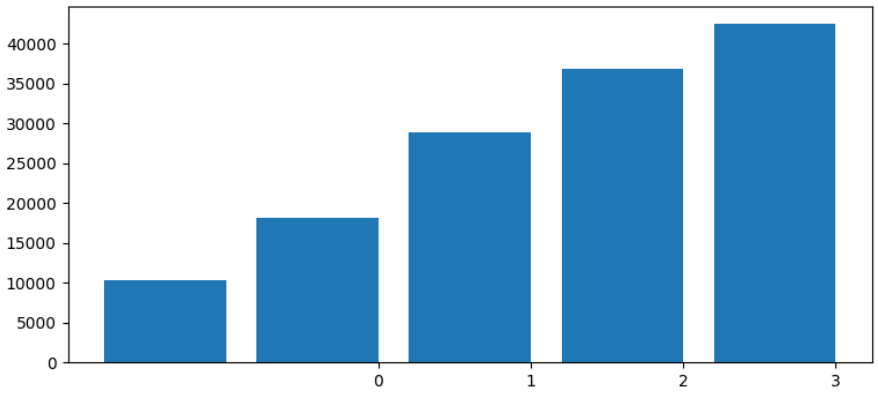
Wage Barchart

```
#Write a line of code to plot a barchart of Wage grouped by Age
from plotting import *

Age=[25, 26, 33, 29, 27, 21, 26, 35, 21, 37, 21, 38, 18, 19, 36, 30, 29, 24, 24,

Wage=[17000, 13000, 28000, 45000, 28000, 1200, 15500, 26400, 14000, 35000, 16400

#Insert your code on the next line
barchart(Age, Wage)
```



Wage Vs Age

IS the relationship between Wage and Age exactly linear, approximately linear or there is no relationship?

Answer: approximately linear

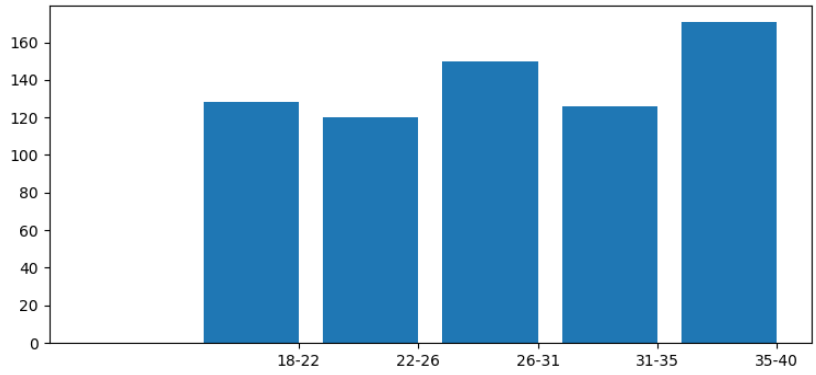
Most Common Age

```
#Write a line of code to produce a histogram of Age
from plotting import *

Age=[25, 26, 33, 29, 27, 21, 26, 35, 21, 37, 21, 38, 18, 19, 36, 30, 29, 24, 24,

Wage=[17000, 13000, 28000, 45000, 28000, 1200, 15500, 26400, 14000, 35000, 16400,

#Insert your code on the next line
histplot(Age)
```



What age group is most frequent?

Answer: 35-40