1.

In[1]:=
```
x = {3, 15, 16, 16, 19, 20, 20, 21, 22, 22, 25,
  25, 25, 25, 30, 33, 33, 35, 35, 35, 35, 36, 40, 45, 46, 52, 70}
```

Out[1]=
```
{3, 15, 16, 16, 19, 20, 20, 21, 22, 22, 25, 25,
 25, 25, 30, 33, 33, 35, 35, 35, 35, 36, 40, 45, 46, 52, 70}
```

In[18]:=
```
y = Partition[x, 3]
```

Out[18]=
```
{{3, 15, 16}, {16, 19, 20}, {20, 21, 22}, {22, 25, 25},
 {25, 25, 30}, {33, 33, 35}, {35, 35, 35}, {36, 40, 45}, {46, 52, 70}}
```

In[35]:=
```
z = Map[Mean, y] // N
```

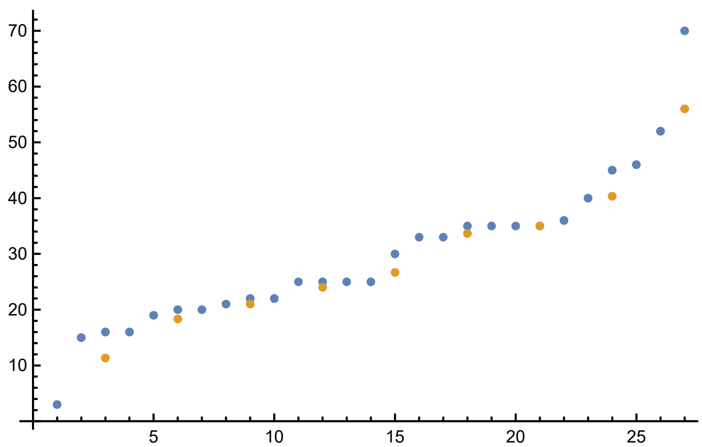
Out[35]=
```
{11.3333, 18.3333, 21., 24., 26.6667, 33.6667, 35., 40.3333, 56.}
```

In[61]:=
```
f1 := Transpose[{Range[Length[x]], x}]
f2 = Transpose[{Range[Length[z]] * 3, z}]
```

Out[62]=
```
{{3, 11.3333}, {6, 18.3333}, {9, 21.}, {12, 24.},
 {15, 26.6667}, {18, 33.6667}, {21, 35.}, {24, 40.3333}, {27, 56.}}
```

In[60]:=
```
ListPlot[{f1, f2}]
```

Out[60]=



This method of binning does a great job at maintaining the curve with considerably less points.

In[65]:=
```
Quantile[x, {.2, .4, .6, .8, 1}]
```

Out[65]=
```
{20, 25, 33, 36, 70}
```

In[64]:=
```
InterquartileRange[x] // N
```

In[67]:=
```
l = 14.75
```

Out[67]=
```
14.75
```

In[68]:=
```
Outlier = 1.5 * l
```

Out[68]=
```
22.125
```

In[70]:=
```
36 + Outlier
```
Out[70]= 58.125

In[71]:=
```
25 - Outlier
```
Out[71]= 2.875

It seems that 70 is an outlier.

In[78]:= $\text{minmax} = \frac{35 - 13}{70 - 13} * (1 - 0) + 0 \text{ // N}$

Out[78]= 0.385965

In[79]:= $\text{zscore} = \frac{35 - \text{Mean}[x]}{\text{StandardDeviation}[x]} \text{ // N}$

Out[79]= 0.398368

In[81]:= $\text{decimal} = \frac{35}{100} \text{ // N}$

Out[81]= 0.35