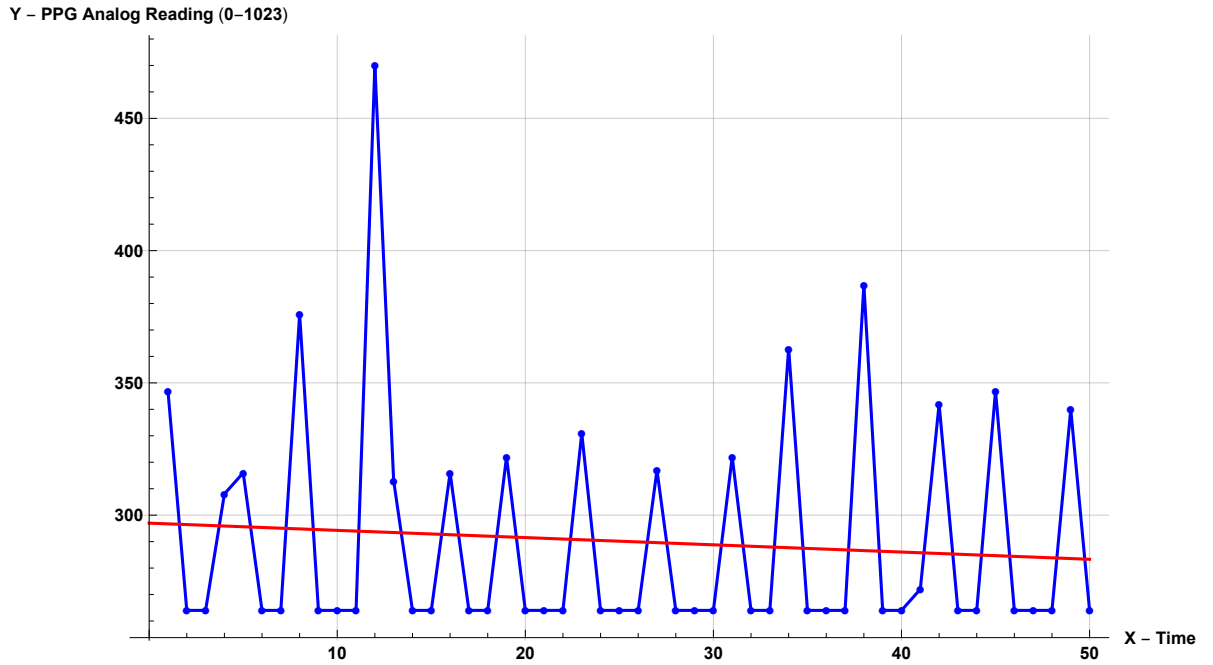
In[1]:=
```
data = {{1, 347}, {2, 264}, {3, 264}, {4, 308}, {5, 316}, {6, 264}, {7, 264}, {8, 376},
    {9, 264}, {10, 264}, {11, 264}, {12, 470}, {13, 313}, {14, 264}, {15, 264},
    {16, 316}, {17, 264}, {18, 264}, {19, 322}, {20, 264}, {21, 264}, {22, 264},
    {23, 331}, {24, 264}, {25, 264}, {26, 264}, {27, 317}, {28, 264}, {29, 264},
    {30, 264}, {31, 322}, {32, 264}, {33, 264}, {34, 363}, {35, 264}, {36, 264},
    {37, 264}, {38, 387}, {39, 264}, {40, 264}, {41, 272}, {42, 342}, {43, 264},
    {44, 264}, {45, 347}, {46, 264}, {47, 264}, {48, 264}, {49, 340}, {50, 264}};
lm = LinearModelFit[data, x, x]
```

Out[2]=
```
FittedModel[ 296.986 - 0.273181 x ]
```

In[3]:=
```
Show[ListLinePlot[data, PlotStyle → Blue, PlotMarkers → {Automatic, 6},
  GridLines → Automatic], Plot[lm[x], {x, 0, 50}, PlotStyle → Red],
 AxesLabel → {"X - Time", "Y - PPG Analog Reading (0-1023)"},
 PslotLabel → lm["BestFit"]]
```

Out[3]=



In[4]:=
```
data2 = {{1, 265}, {2, 471}, {3, 264}, {4, 264}, {5, 574}, {6, 264}, {7, 264},
    {8, 264}, {9, 640}, {10, 264}, {11, 264}, {12, 264}, {13, 558}, {14, 275},
    {15, 264}, {16, 264}, {17, 440}, {18, 264}, {19, 264}, {20, 264},
    {21, 450}, {22, 264}, {23, 265}, {24, 264}, {25, 466}, {26, 264},
    {27, 264}, {28, 264}, {29, 487}, {30, 264}, {31, 264}, {32, 264},
    {33, 476}, {34, 280}, {35, 264}, {36, 264}, {37, 446}, {38, 264},
    {39, 264}, {40, 264}, {41, 338}, {42, 434}, {43, 265}, {44, 264},
    {45, 303}, {46, 333}, {47, 264}, {48, 264}, {49, 307}, {50, 264}};
```

In[6]:=
```
lm2 = LinearModelFit[data2, x, x]
```

Out[6]=
```
FittedModel[ 349.08 - 1.14588 x ]
```

In[7]:=
```
Show[ListLinePlot[data2, PlotStyle → Blue,
  PlotMarkers → {Automatic, 6}, PlotRange → {250, 650}, GridLines → Automatic],
 Plot[lm2[x], {x, 0, 50}, PlotStyle → Red],
 AxesLabel → {"X - Time", "Y - PPG Analog Reading (0-1023)"},
 PslotLabel → lm["BestFit"]]
```

Out[7]=