```
ln[334] = data = \{ \{16, 3340, 3330\}, \{18, 3000, 3000\}, \{20, 2810, 2770\}, \{22, 2590, 2530\}, \{20, 2810, 2770\}, \{21, 2810, 2810\}, \{21, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810, 2810
                                                  {24, 2380, 2400}, {26, 2180, 2160}, {28, 1990, 1970}, {30, 1790, 1770},
                                                   {32, 1650, 1640}, {34, 1540, 1520}, {36, 1360, 1380}, {38, 1310, 1300},
                                                    {40, 1210, 1180}, {42, 1110, 1090}, {44, 1020, 990}, {46, 950, 930},
                                                    {48, 860, 880}, {50, 810, 790}, {52, 740, 740}, {54, 690, 680}, {56, 630, 630},
                                                    \{58, 580, 580\}, \{60, 560, 550\}, \{62, 520, 510\}, \{64, 470, 480\}, \{66, 460, 440\}, \{66, 460, 440\}, \{66, 460, 440\}, \{66, 460, 460, 440\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66, 460\}, \{66
                                                    {68, 420, 420}, {70, 380, 380}, {72, 360, 360}, {74, 340, 330}};
                                separated = Join[data[[All, {1, 2}]], data[[All, {1, 3}]]];
                               measurementsPlot = ListPlot[separated,
                                                  AxesLabel → {"Temperatura (°C)", "Resistência Elétrica (Ω)"}];
                               Export[NotebookDirectory[] <> "Images/NTC-MeasurementsPlot.pdf",
                                           measurementsPlot];
                               fitted = NonlinearModelFit[separated, R_0 \text{ Exp}\left[\beta\left(\frac{1}{T+273}\right)\right], \{R_0, \beta\}, T];
                                fitPlot = Show[
                                                 ListPlot[separated, PlotStyle → Red],
                                                  Plot[fitted[T], {T, Min[separated[[All, 1]]], Max[separated[[All, 1]]]}],
                                                 AxesLabel \rightarrow {"Temperatura (°C)", "Resistência Elétrica (\Omega)"}
                                            ];
                                Export[NotebookDirectory[] <> "Images/NTC-FitPlot.pdf", fitPlot];
   ln[341]:= data = \{\{18, 50.7\}, \{20, 43.8\}, \{22, 38.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}, \{24, 31.1\}
                                                  \{26, 23.9\}, \{28, 18.6\}, \{30, 9.8\}, \{32, 2.1\}, \{34, -8\},
                                                  \{36, -15.7\}, \{38, -23.7\}, \{40, -36.1\}, \{42, -42.9\}, \{44, -53.9\}\};
                               ListPlot[data]
                               Grid[data]
                                Export[NotebookFileName[EvaluationNotebook[]] <> ".pdf", EvaluationNotebook[]];
                                    40
                                    20
Out[342]=
                                                                                                                                                                                                   35
                                                                20
                                                                                                              25
                                                                                                                                                             30
                                                                                                                                                                                                                                                          40
                                -20
                                 -40
                                18
                                                     50.7
                                20
                                                      43.8
                                22
                                                     38.1
                                24
                                                      31.1
                                26
                                                     23.9
                                 28
                                                      18.6
                                30
                                                        9.8
Out[343]=
                                32
                                                        2.1
                                34
                                                          - 8
                                36
                                                 -15.7
                                38 - 23.7
                                40 - 36.1
                               42 - 42.9
44 - 53.9
```