**Quadratic 1:**

* **Function value vs. iteration plot:**

**Chart, line chart

Description automatically generated**

* **Contours with iteration paths:**

**Chart

Description automatically generated**

* **GD final iteration report:**

i=2, x=[0. 0.], f(x2)=0.0 Succes: True

* **NT final iteration report:**

i=2, x=[0. 0.], f(x2)=0.0 Succes: True

**Quadratic 2:**

* **Function value vs. iteration plot:**

**Graphical user interface, chart

Description automatically generated**

* **Contours with iteration paths:**

**Chart

Description automatically generated**

* **GD final iteration report:**

i=100, x=[0.11271997 0.0008856 ], f(x100)=0.012784220095399295 Succes: False

* **NT final iteration report:**

i=2, x=[0. 0.], f(x2)=0.0 Succes: True

**Quadratic 3:**

* **Function value vs. iteration plot:**

**A picture containing chart

Description automatically generated**

* **Contours with iteration paths:**

**Diagram

Description automatically generated**

* **GD final iteration report:**

i=100, x=[0.07682763 0.13062022], f(x100)=0.02311258419270041 Succes: False

* **NT final iteration report:**

i=2, x=[0. 0.], f(x2)=0.0 Succes: True

**Sum of exponents:**

* **Function value vs. iteration plot:**

**Chart

Description automatically generated**

* **Contours with iteration paths:**

**Chart

Description automatically generated**

* **GD final iteration report:**

i=29, x=[-3.46572886e-01 -9.76799665e-07], f(x29)=2.559266696664345, Succes: True

* **NT final iteration report:**

i=8, x=[-3.46573590e-01 6.80690347e-12], f(x8)=2.5592666966582156, Succes: True

**Rosenbrock:**

* **Function value vs. iteration plot:**

**A picture containing square

Description automatically generated**

* **Contours with iteration paths:**

Diagram, histogram

Description automatically generated

* **GD final iteration report:**

i=7751, x=[0.99989437 0.99978771], f(x7751)=1.1267173492101773e-08, Succes: True

* **NT final iteration report:**

i=20, x=[0.99999999 0.99999998], f(x20)=2.7300933598972337e-16 Succes: True

**Linear function:**

* **Function value vs. iteration plot:**

**Chart, line chart

Description automatically generated**

* **GD final iteration report:**

i=29, x=[-79.71875572 -75.28125668], f(x29)=-389.71878051757903, Success: True