

```
In[218]:= t = 2.5; e = 0.6; n = 40;
```

```
In[219]:= F[x_] := t + e * Sin[x]
```

```
In[248]:= iterace = NestList[F, t, n]
```

```
Out[248]= {2.5, 2.859083286462374, 2.6672598501177625, 2.77404700744863, 2.715595650331241,  
2.747937331151057, 2.7301400251096895, 2.73996468567054, 2.7345503700175677,  
2.737537003049407, 2.735890378573329, 2.736798475483441, 2.736297748378261,  
2.7365738747919894, 2.7364216119636295, 2.736505575625048, 2.7364592754657875,  
2.7364848070115064, 2.7364707280766947, 2.7364784916838953, 2.73647421057059,  
2.7364765713217647, 2.736475269523981, 2.7364759873793285, 2.736475591529649,  
2.7364758098145443, 2.736475689444878, 2.73647575582078, 2.736475719218865,  
2.736475739402398, 2.7364757282725156, 2.7364757344099093, 2.7364757310255428,  
2.736475732891797, 2.736475731862681, 2.7364757324301703, 2.736475732117238,  
2.7364757322897995, 2.736475732194643, 2.7364757322471154, 2.7364757322181803}
```

```
In[249]:= spravna = iterace[[n]]
```

```
Out[249]= 2.7364757322471154
```

```
In[250]:= G[x_] := Abs[x - spravna]
```

```
In[251]:= odchylky = G @@@ Partition[iterace, 1, 1]
```

```
Out[251]= {0.23647573224711538, 0.12260755421525849, 0.06921588212935292,  
0.03757127520151471, 0.020880081915874538, 0.011461598903941717,  
0.006335707137425928, 0.00348895342342459, 0.0019253622295476447,  
0.0010612708022916806, 0.0005853536737863152, 0.0003227432363255289,  
0.00017798386885425899, 0.00009814254487405805, 0.00005412028348583675,  
0.000029843377932436965, 0.000016456781327889303, 9.074764391048262 × 10-6,  
5.0041704207082205 × 10-6, 2.759436779964375 × 10-6, 1.5216765252290543 × 10-6,  
8.390746493169843 × 10-7, 4.6272313447559554 × 10-7, 2.5513221313389067 × 10-7,  
1.4071746656796336 × 10-7, 7.756742892439661 × 10-8, 4.2802237310013425 × 10-8,  
2.3573664797993388 × 10-8, 1.3028250478441805 × 10-8, 7.155282588655609 × 10-9,  
3.97459976042569 × 10-9, 2.162793943938368 × 10-9, 1.2215726208353317 × 10-9,  
6.446816414040768 × 10-10, 3.8443426220169385 × 10-10,  
1.8305490456782536 × 10-10, 1.298774421343296 × 10-10, 4.268407849394862 × 10-11,  
5.247224876825385 × 10-11, 0., 2.893507655699068 × 10-11}
```



```
In[254]:= ListLogPlot[newtonodchylky]
```

