26. Sovita seuraavat mittausarvot toisen asteen polynomilla:
(-2, 6), (-1, 1), (0, 0.5), (1, 2), (2, 4)

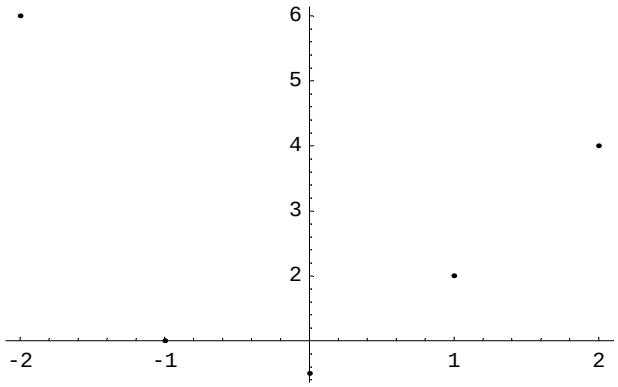
In[24]:=
```
taulu = {{-2, 6}, {-1, 1}, {0, 0.5}, {1, 2}, {2, 4}}
```

Out[24]=
```
{{-2, 6}, {-1, 1}, {0, 0.5}, {1, 2}, {2, 4}}
```

In[57]:=
```
tikku = Fit[taulu, {1, x^2}, x]
```

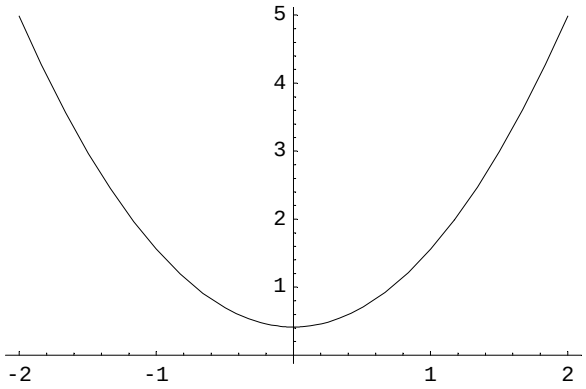
Out[57]=
$$0.414286 + 1.14286\, x^2$$

In[58]:=
```
keppi = ListPlot[taulu]
```



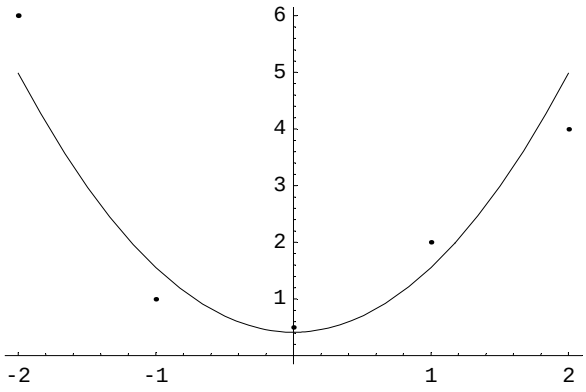
Out[58]= - Graphics -

In[59]:=
```
porkkana = Plot[tikku, {x, -2, 2}]
```



Out[59]= - Graphics -

In[60]:= **Show[{keppi, porkkana}, PlotRange → Automatic]**



Out[60]= **-** Graphics **-**

27. Tee äskeisen neliöllisen sovituksen tilastollinen analyysi Regress-funktiolla.

In[61]:= **Regress[taulu, {1, x^2}, x]**

Out[61]=

		Estimate	SE	TStat	PValue
ParameterTable →	1	0.414286	0.638024	0.649326	0.562409 ,
	x^2	1.14286	0.244671	4.67099	0.0185291

RSquared → 0.879121, AdjustedRSquared → 0.838828, EstimatedVariance → 0.838095,

		DF	SumOfSq	MeanSq	FRatio	PValue
ANOVATable →	Model	1	18.2857	18.2857	21.8182	0.0185291
	Error	3	2.51429	0.838095		
	Total	4	20.8			

28. Kokeile sovittaa esimerkin suoraa toisen asteen polynomilla. Selitä mitä tapahtui.

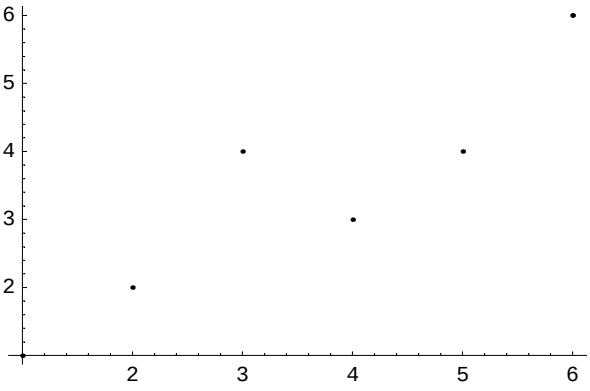
In[40]:= **arvot = {{1, 1}, {2, 2}, {3, 4}, {4, 3}, {5, 4}, {6, 6}}**

Out[40]= {{1, 1}, {2, 2}, {3, 4}, {4, 3}, {5, 4}, {6, 6}}

In[54]:= **jep = Fit[arvot, {1, x^2}, x]**

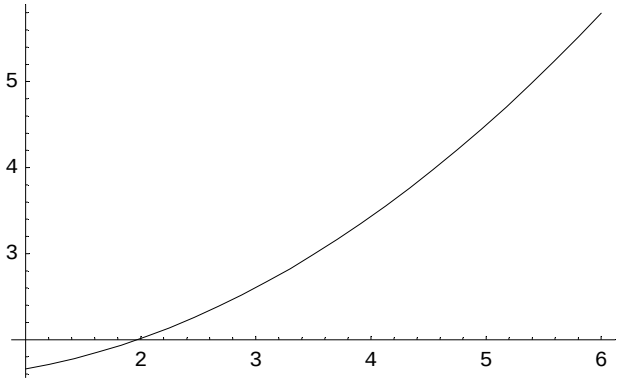
Out[54]= $1.54237 + 0.118085\, x^2$

In[43]:= **kiva = ListPlot[arvot]**



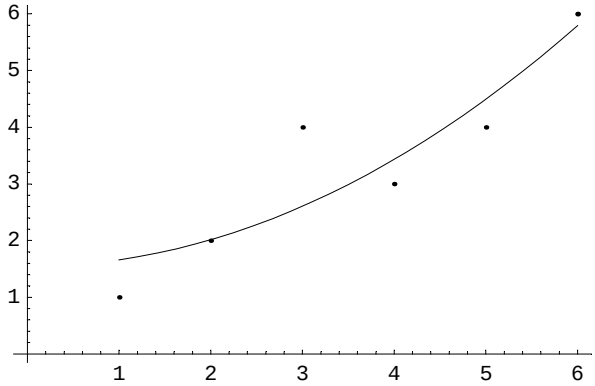
Out[43]= **-** Graphics **-**

In[55]:= **kurssi = Plot[jep, {x, 1, 6}]**



Out[55]= **-** Graphics **-**

In[56]:= **Show[kiva, kurssi]**



Out[56]= **-** Graphics **-**