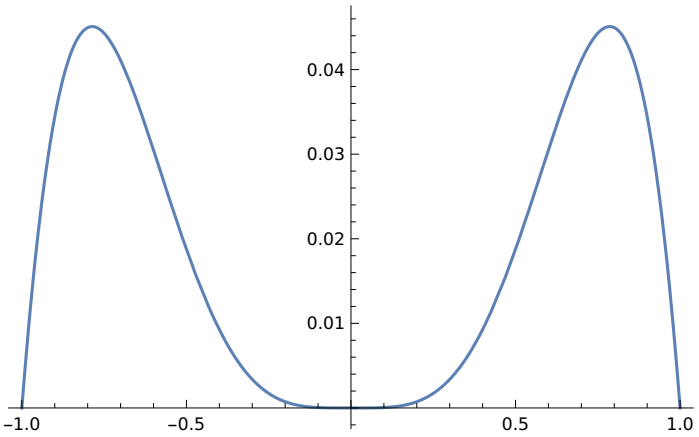
In[5]:=
```
g[t_] := InterpolatingPolynomial[{{-1, 1/2}, {0, {1, 0, -2}}, {1, 1/2}}, t];
Expand[g[t]]
f[t_] := 1/(1 + t^2);
Plot[f[t] - g[t], {t, -1, 1}]
```

Out[6]=

$$1 - t^2 + \frac{t^4}{2}$$

Out[8]=



In[9]:=
```
InterpolatingPolynomial[{{-1, 0}, {1, 2}, {3, 4}, {4, 5}}, x]
```

Out[9]=

$$1 + x$$

In[13]:=
```
Expand[InterpolatingPolynomial[{{-1, {1, 0}}, {0, 0}, {1, {1, 4, 16}}}, x]]
```

Out[13]=

$$x^2 - x^3 + x^5$$