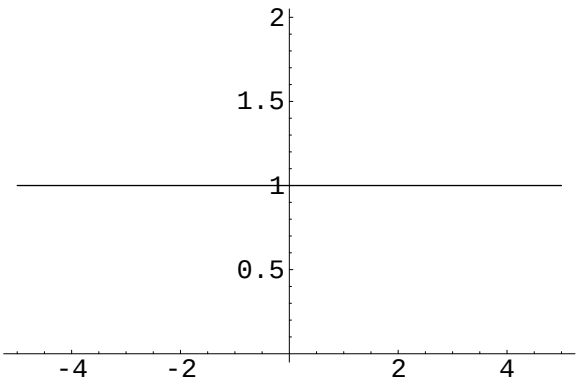
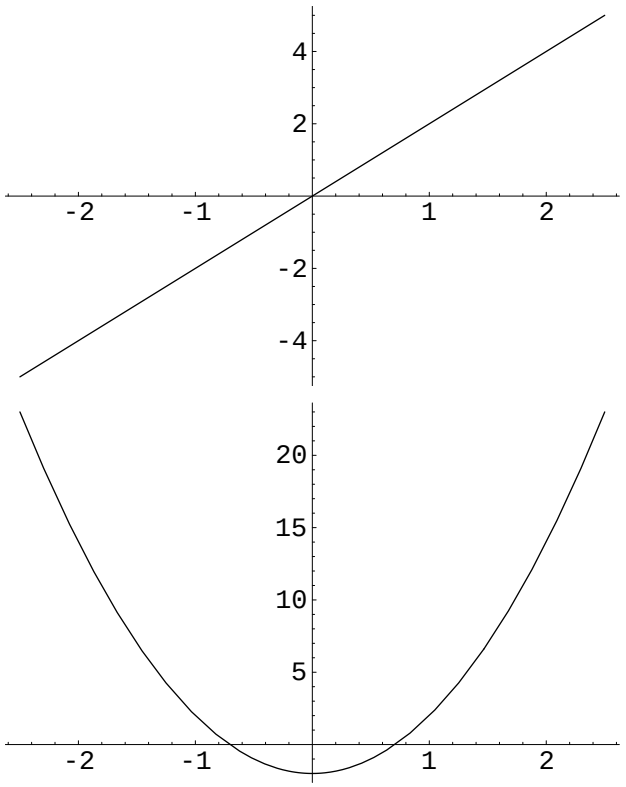
```
(* wielomiany Hermite' a, pierwsze wyrazy, wartosci zgodne z tym co na wykladzie *)
```

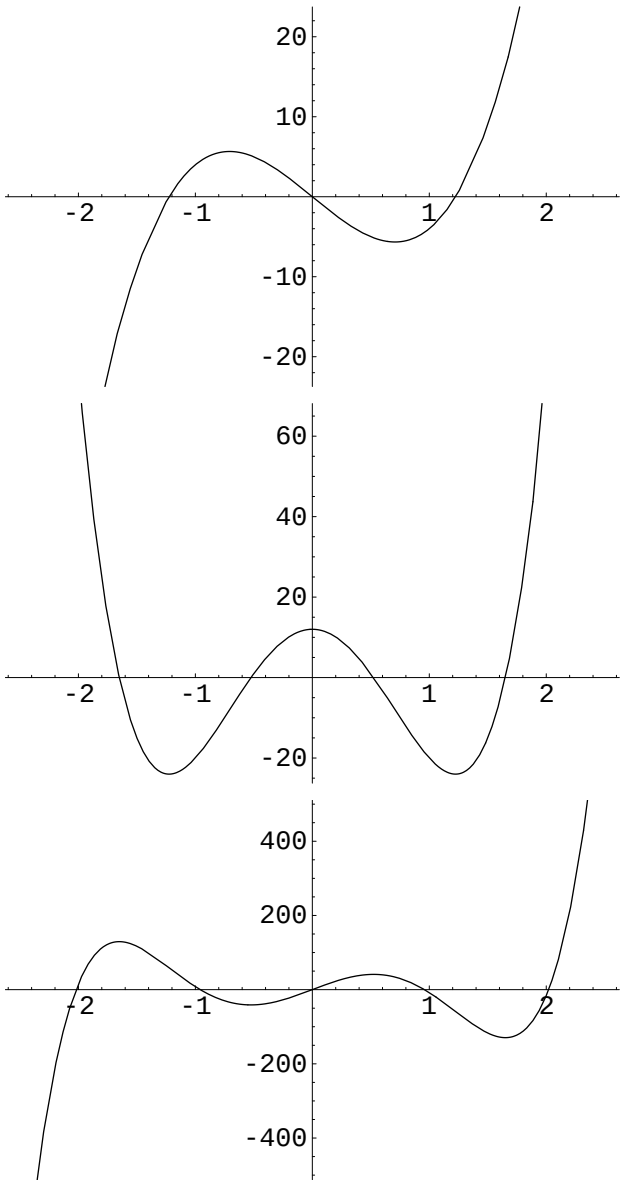
In[47]:=
```
Plot[HermiteH[0, x], {x, -5, 5}]
```



Out[47]= - Graphics -

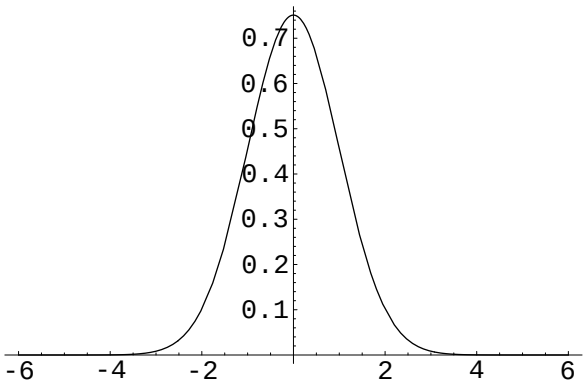
In[46]:=
```
Do[Plot[HermiteH[n, x], {x, -2.5, 2.5}], {n, 1, 5}]
```





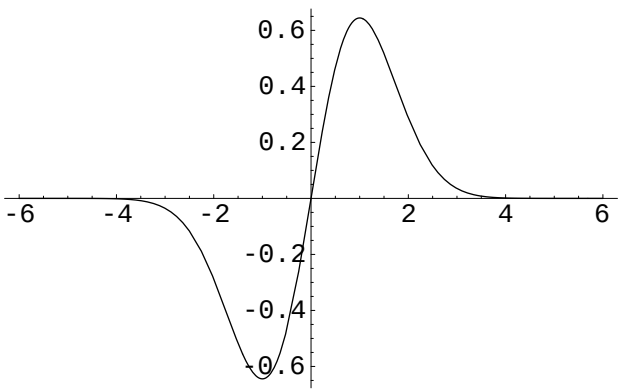

```
In[50]:= Psi[n_] := (1 / Pi) ^ (1 / 4) 1 / Sqrt[2^n Factorial[n]] HermiteH[n, x] Exp[-x^2 / 2]
```

In[51]:= **Plot[(Psi[0]), {x, -6, 6}]**



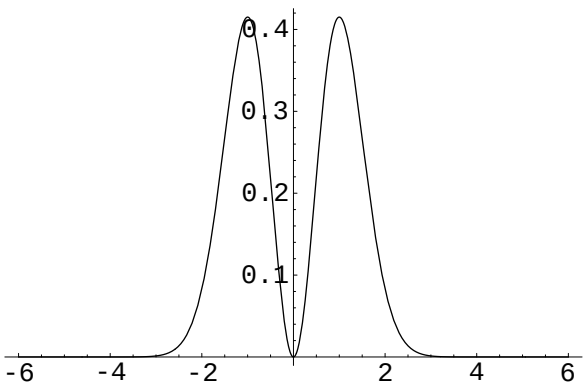
Out[51]= **-** Graphics **-**

In[52]:= **Plot[(Psi[1]), {x, -6, 6}]**



Out[52]= **-** Graphics **-**

In[53]:= **Plot[(Psi[1])^2, {x, -6, 6}]**

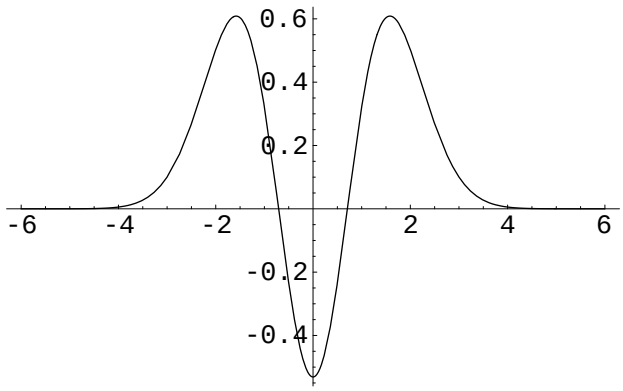


Out[53]= **-** Graphics **-**

In[54]:= **NIntegrate[Psi[1]^2, {x, -Infinity, Infinity}]**

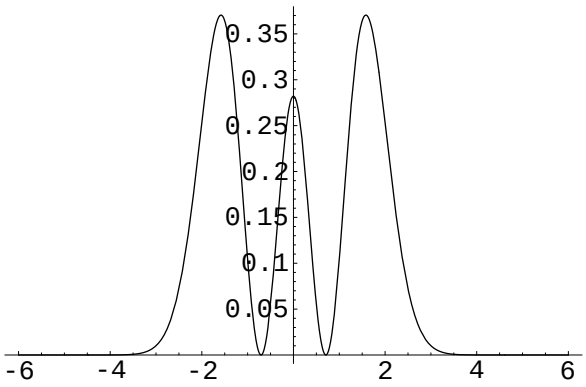
Out[54]= 1.

In[55]:= **Plot[(Psi[2]), {x, -6, 6}]**



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

In[56]:= **Plot[(Psi[2])^2, {x, -6, 6}]**

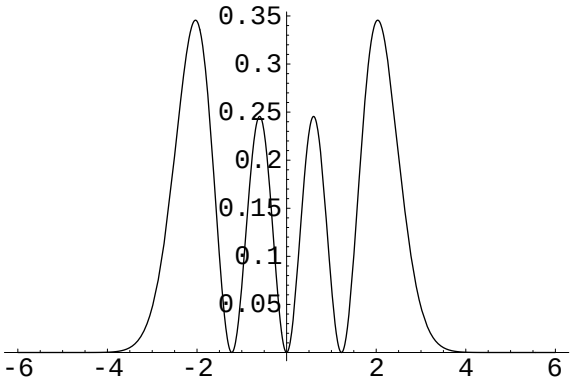


Out[56]= **-** Graphics **-**

In[57]:= **NIntegrate[Psi[2]^2, {x, -Infinity, Infinity}]**

Out[57]= 1.

In[58]:= **Plot[(Psi[3])^2, {x, -6, 6}]**

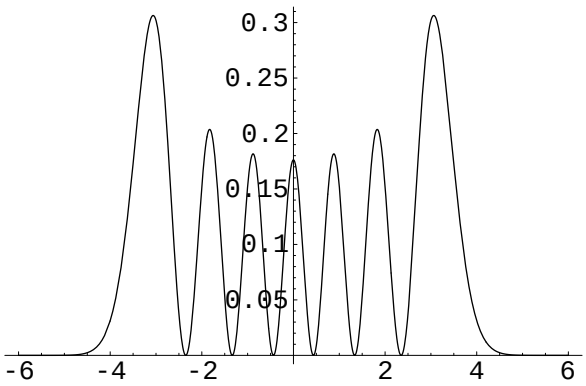


Out[58]= **-** Graphics **-**

In[59]:=
```
NIntegrate[Psi[3]^2, {x, -Infinity, Infinity}]
```

Out[59]= 1.

In[60]:=
```
Plot[(Psi[6])^2, {x, -6, 6}]
```

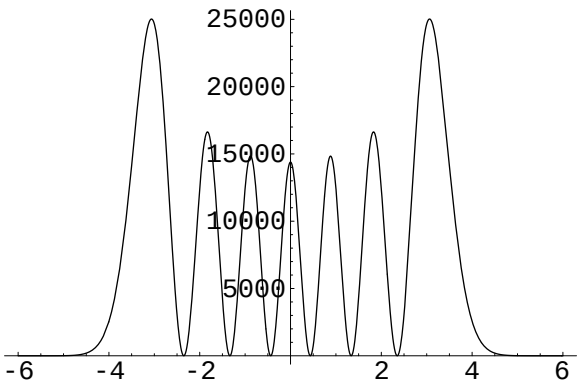


Out[60]= - Graphics -

In[61]:=
```
NIntegrate[Psi[6]^2, {x, -Infinity, Infinity}]
```

Out[61]= 1.

In[62]:=
```
Plot[(HermiteH[6, x] Exp[-x^2 / 2])^2, {x, -6, 6}]
```



Out[62]= - Graphics -

In[63]:=
```
NIntegrate[Psi[6]^2, {x, -Infinity, Infinity}]
```

Out[63]= 1.