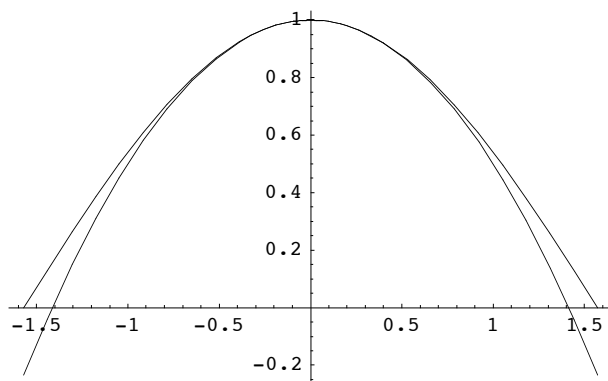
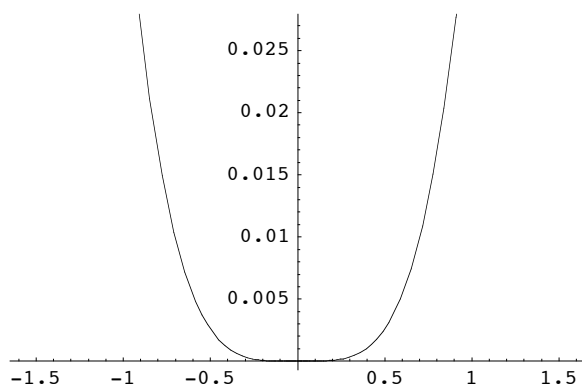


```
In[2]:= Plot[{1 - x^2 / 2, Cos[x]}, {x, -π / 2, π / 2}]
```



```
Out[2]= - Graphics -
```

```
In[3]:= Plot[{Cos[x] - 1 + x^2 / 2}, {x, -π / 2, π / 2}]
```



```
Out[3]= - Graphics -
```

```
In[4]:= ∫-π/2π/2 x^2 dx
```

```
Out[4]= π3 / 12
```

```
In[5]:= ∫-π/2π/2 Cos[x] dx
```

```
Out[5]= 2
```

```
In[6]:= ∫-π/2π/2 ((x^2 - π^2 / 12) Cos[x]) dx
```

```
Out[6]= -4 + π2 / 3
```

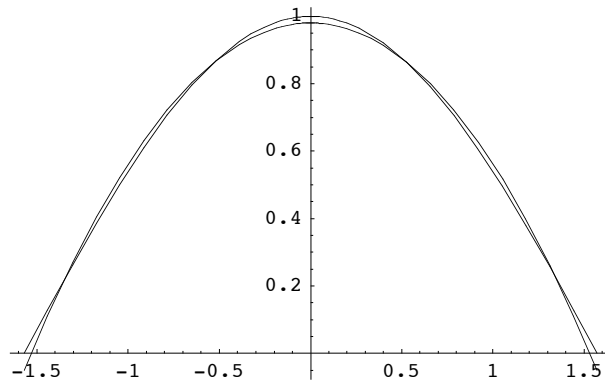
```
In[7]:= ∫-π/2π/2 ((x^2 - π^2 / 12)^2) dx
```

```
Out[7]= π5 / 180
```

```
In[9]:= Expand[(-4 +  $\frac{\pi^2}{3}$ ) * 180]
```

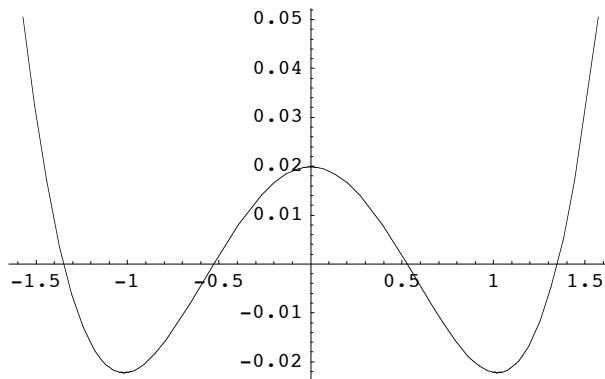
```
Out[9]= -720 + 60  $\pi^2$ 
```

```
In[10]:= Plot[{2 /  $\pi$  + (x^2 -  $\pi^2$  / 12) * (-720 + 60  $\pi^2$ ) /  $\pi^5$ , Cos[x]}, {x, - $\pi$  / 2,  $\pi$  / 2}]
```



```
Out[10]= - Graphics -
```

```
In[11]:= Plot[Cos[x] - (2 /  $\pi$  + (x^2 -  $\pi^2$  / 12) * (-720 + 60  $\pi^2$ ) /  $\pi^5$ ), {x, - $\pi$  / 2,  $\pi$  / 2}]
```



```
Out[11]= - Graphics -
```