In[ ]:=
```
p = x ^ 2 - 3 * x + 4
```

In[ ]:=
```
4 - 3 x + x^2
Integrate[p, {x, -1, 1}]
```

Out[ ]= $4 - 3x + x^2$

Out[ ]= $\frac{26}{3}$

In[ ]:=
```
p3 = 5 * x ^ 3 - 2 * x ^ 2 + x - 16
```

Out[ ]= $-16 + x - 2x^2 + 5x^3$

In[ ]:=
```
Integrate[p3, {x, -1, 1}]
```

In[ ]:= $-\frac{100}{3}$

```
n = 4
2 * n - 1
```

Out[ ]= $-\frac{100}{3}$

Out[ ]= 4

Out[ ]= 7

In[ ]:=
```
p7 = x ^ 7 - 5 * x ^ 6 + x ^ 4 - 2 * x ^ 3 + 2
```

Out[ ]= $2 - 2x^3 + x^4 - 5x^6 + x^7$

In[ ]:=
```
Integrate[p7, {x, -1, 1}]
```

Out[ ]= $\frac{104}{35}$

In[ ]:=
```
p8 = 2 * x ^ 8 - x ^ 7 + 13 * x ^ 4
```

Out[ ]= $13x^4 - x^7 + 2x^8$

In[ ]:=
```
Integrate[p8, {x, -1, 1}]
```

Out[ ]= $\frac{254}{45}$

```
pt = 1 + x + 1 / 2 * x ^ 2 + 1 / 6 * x ^ 3 + 1 / 24 * x ^ 4 +
    1 / 120 * x ^ 5 + 1 / 720 * x ^ 6 + 1 / 5040 * x ^ 7 +
   1 / 40 320 * x ^ 8
```

Out[ ]= $1 + x + \frac{x^2}{2} + \frac{x^3}{6} + \frac{x^4}{24} + \frac{x^5}{120} + \frac{x^6}{720} + \frac{x^7}{5040} + \frac{x^8}{40\,320}$

In[ ]:=
```
pt /. x → 1
```

Out[ ]= $\frac{109\,601}{40\,320}$

In[ ]:=
```
N[Exp[1], 15]
```

Out[ ]= 2.71828182845905

In[ ]:=
```
N[pt /. x → 1, 15]
```

Out[ ]= 2.71825396825397

In[ ]:=
```
Integrate[pt, {x, -1, 1}]
```

Out[ ]= $\frac{426\,457}{181\,440}$

In[ ]:=
```
pt
```

Out[ ]= $1 + x + \frac{x^2}{2} + \frac{x^3}{6} + \frac{x^4}{24} + \frac{x^5}{120} + \frac{x^6}{720} + \frac{x^7}{5040} + \frac{x^8}{40\,320}$