

# Jeremy — 2025-01-17 — PS 1

In[1]:=  $1 + 2 + 3$

Out[1]= 6

In[2]:=  $1 + 2 + 3 + 4 + 5$

Out[2]= 15

In[3]:=  $1 * 2 * 3 * 4 * 5$

Out[3]= 120

In[4]:=  $5^2$

Out[4]= 25

In[5]:=  $3^4$

Out[5]= 81

In[6]:=  $10^{12}$

Out[6]= 1 000 000 000 000

In[7]:=  $3^{(7 * 8)}$

Out[7]= 523 347 633 027 360 537 213 511 521

In[8]:=  $(4 - 2) * (3 + 4)$

Out[8]= 14

In[9]:=  $29\,000 * 73$

Out[9]= 2 117 000

In[10]:=  $-3 + -2 + -1 + 0 + 1 + 2 + 3$

Out[10]=  
0

In[11]:=  $24 / 3$

Out[11]=  
8

In[12]:=  $5^{100}$

Out[12]=  
7 888 609 052 210 118 054 117 285 652 827 862 296 732 064 351 090 230 047 702 789 306 640 625

In[13]:=  $100 - 5^2$

Out[13]=  
75

```
In[14]:= 6 * 5 ^ 2 + 7
```

```
Out[14]=  
157
```

```
In[15]:= 3 ^ 2 - 2 ^ 3
```

```
Out[15]=  
1
```

```
In[16]:= 2 ^ 3 * 3 ^ 2
```

```
Out[16]=  
72
```

```
In[17]:= 2 * (8 - 11)
```

```
Out[17]=  
-6
```

```
In[18]:= Plus[7, 6, 5]
```

```
Out[18]=  
18
```

```
In[19]:= Times[2, Plus[3, 4]]
```

```
Out[19]=  
14
```

```
In[20]:= Max[6 * 8, 5 * 9]
```

```
Out[20]=  
48
```

```
In[21]:= RandomInteger[1000]
```

```
Out[21]=  
506
```

```
In[22]:= Plus[10, RandomInteger[10]]
```

```
Out[22]=  
15
```

```
In[23]:= Times[5, 4, 3, 2]
```

```
Out[23]=  
120
```

```
In[24]:= Subtract[2, 3]
```

```
Out[24]=  
-1
```

```
In[25]:= Times[Plus[8, 7], Plus[9, 2]]
```

```
Out[25]=  
165
```

```
In[26]:= Divide[Subtract[26, 89], 9]
```

```
Out[26]=  
-7
```

```
In[27]:= Subtract[100, Power[5, 2]]
```

```
Out[27]=  
75
```

```
In[28]:= Max[3^5, 5^3]
```

```
Out[28]=  
243
```

```
In[29]:= 3 * Max[4^3, 3^4]
```

```
Out[29]=  
243
```

```
In[30]:= RandomInteger[1000] + RandomInteger[1000]
```

```
Out[30]=  
1002
```

```
In[31]:= Range[4]
```

```
Out[31]=  
{1, 2, 3, 4}
```

```
In[32]:= Range[100]
```

```
Out[32]=  
{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22,  
23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42,  
43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62,  
63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81,  
82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100}
```

```
In[33]:= Reverse[Range[4]]
```

```
Out[33]=  
{4, 3, 2, 1}
```

```
In[34]:= Reverse[Range[50]]
```

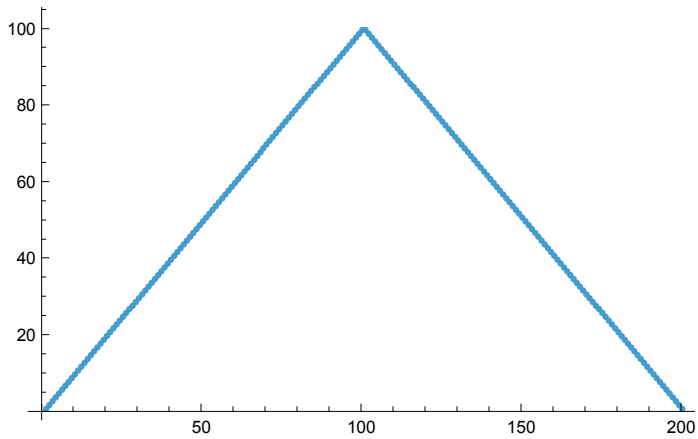
```
Out[34]=  
{50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37,  
36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20,  
19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1}
```

```
In[35]:= Join[Range[4], Reverse[Range[4]]]
```

```
Out[35]=  
{1, 2, 3, 4, 4, 3, 2, 1}
```

```
In[36]:= ListPlot[Join[Range[100], Reverse[Range[100]]]]
```

```
Out[36]=
```



```
In[37]:= Range[RandomInteger[10]]
```

```
Out[37]=
```

```
{1, 2, 3, 4, 5, 6, 7, 8, 9, 10}
```

```
In[38]:= Range[10]
```

```
Out[38]=
```

```
{1, 2, 3, 4, 5, 6, 7, 8, 9, 10}
```

```
In[39]:= Range[5]
```

```
Out[39]=
```

```
{1, 2, 3, 4, 5}
```

```
In[40]:= Join[Range[10], Range[10], Range[5]]
```

```
Out[40]=
```

```
{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 1, 2, 3, 4, 5}
```

```
In[41]:= Join[Range[20], Reverse[Range[20]]]
```

```
Out[41]=
```

```
{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19,
 20, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1}
```

```
In[42]:= Reverse[Reverse[Range[4]]]
```

```
Out[42]=
```

```
{1, 2, 3, 4}
```

```
In[43]:= Join[Range[5], Reverse[Range[4]]]
```

```
Out[43]=
```

```
{1, 2, 3, 4, 5, 4, 3, 2, 1}
```

```
In[44]:= Join[Reverse[Range[3]], Reverse[Range[4]], Reverse[Range[5]]]
```

```
Out[44]=
```

```
{3, 2, 1, 4, 3, 2, 1, 5, 4, 3, 2, 1}
```

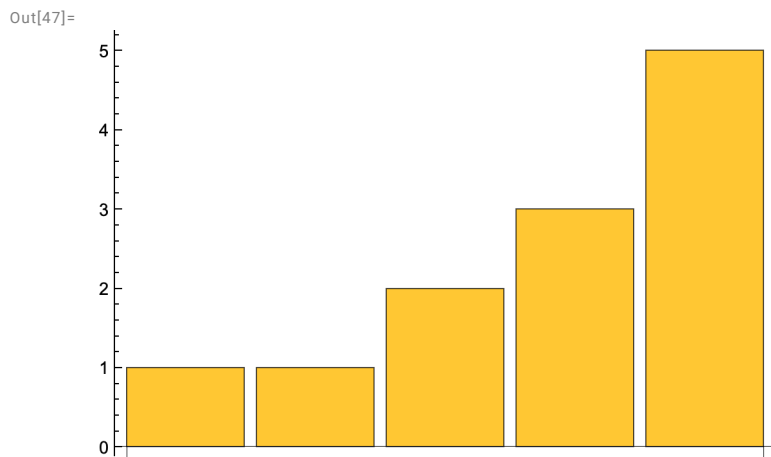
```
In[45]:= Range[5] + 9
```

```
Out[45]= {10, 11, 12, 13, 14}
```

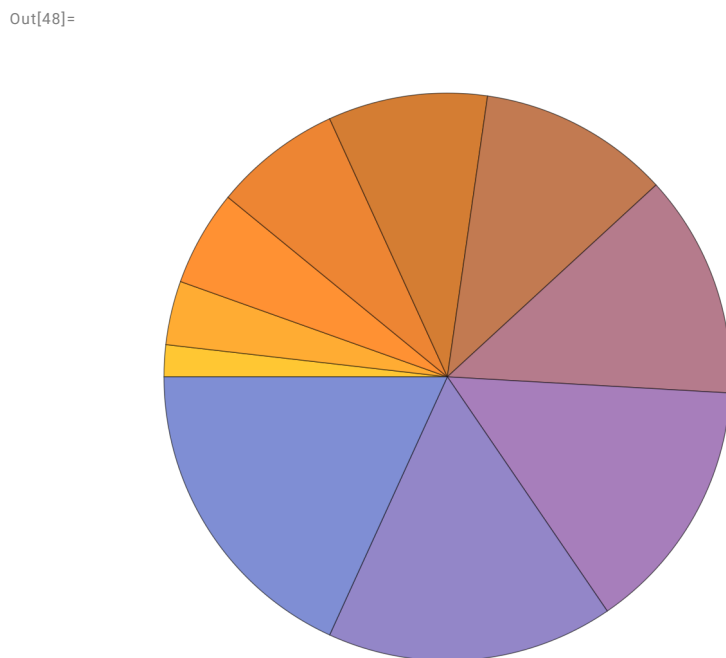
```
In[46]:= Join[Range[10], Reverse[Range[10]], Range[10]]
```

```
Out[46]= {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10}
```

```
In[47]:= BarChart[{1, 1, 2, 3, 5}]
```

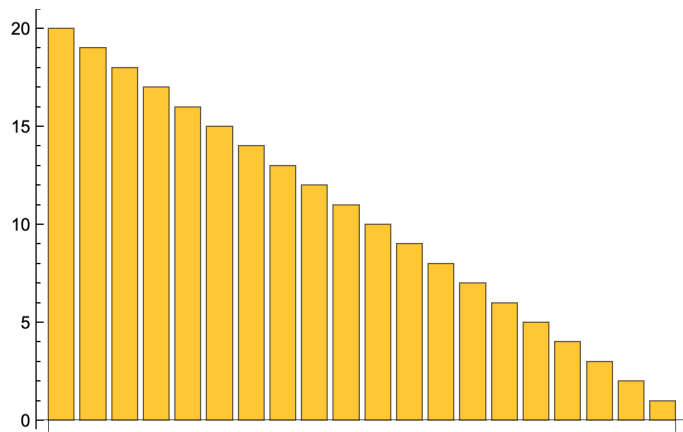


```
In[48]:= PieChart[Range[10]]
```



```
In[49]:= BarChart[Reverse[Range[20]]]
```

Out[49]=



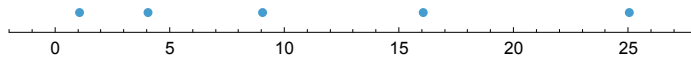
```
In[50]:= Column[Range[5]]
```

Out[50]=

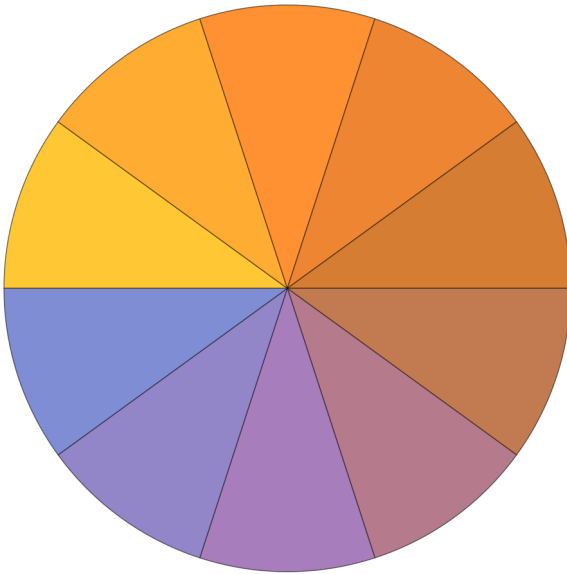
```
1
2
3
4
5
```

```
In[51]:= NumberLinePlot[Range[5]^2]
```

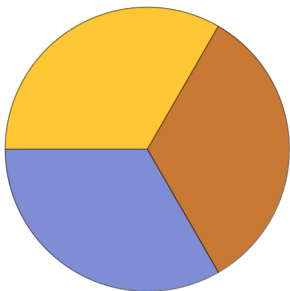
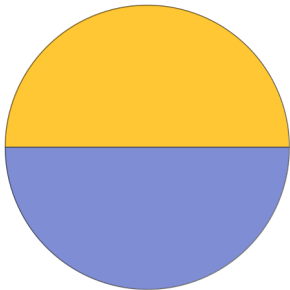
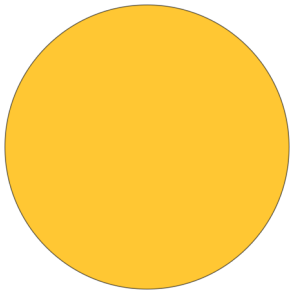
Out[51]=



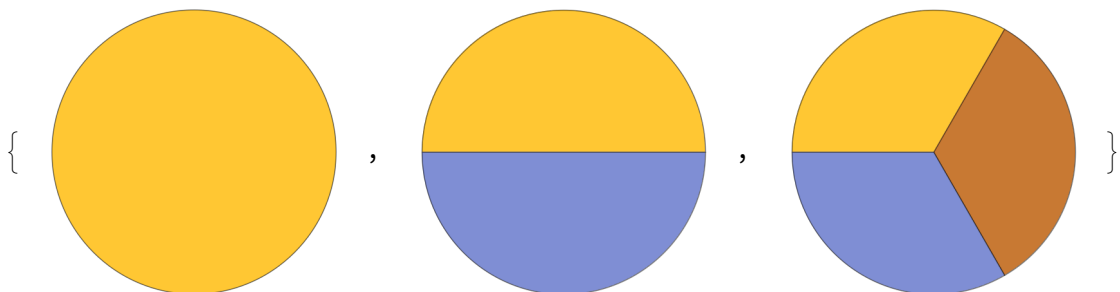
```
In[52]:= PieChart[{1, 1, 1, 1, 1, 1, 1, 1, 1, 1}]  
Out[52]=
```



```
In[53]:= Column[{PieChart[{1}], PieChart[{1, 1}], PieChart[{1, 1, 1}]}]  
Out[53]=
```



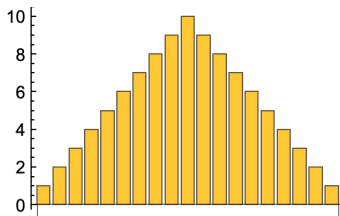
```
In[54]:= {PieChart[{1}], PieChart[{1, 1}], PieChart[{1, 1, 1}]}  
Out[54]=
```





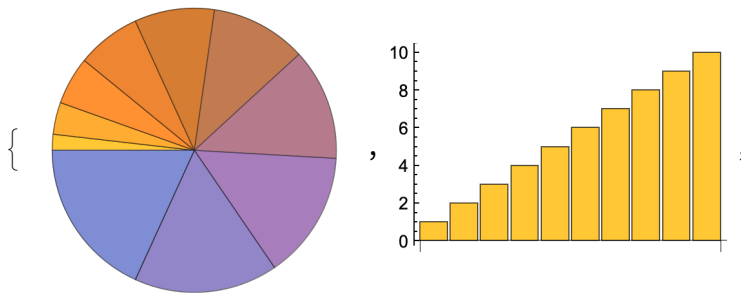
In[55]:= **BarChart**[Join[Range[10], Reverse[Range[9]]]]

Out[55]=



In[56]:= **{PieChart**[Range[10]], **BarChart**[Range[10]], **LinePlot**[Range[10]]}

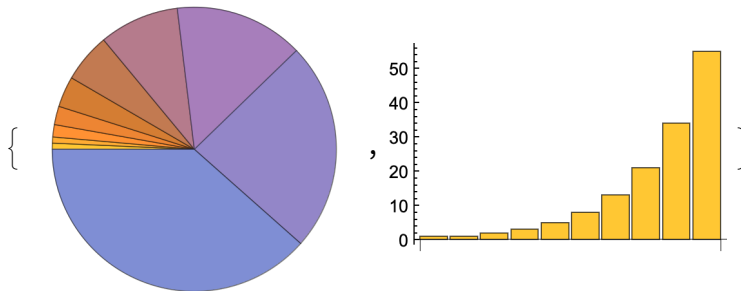
Out[56]=



**LinePlot**[{1, 2, 3, 4, 5, 6, 7, 8, 9, 10}]}

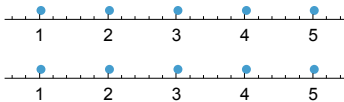
In[57]:= **{PieChart**[{1, 1, 2, 3, 5, 8, 13, 21, 34, 55}],  
**BarChart**[{1, 1, 2, 3, 5, 8, 13, 21, 34, 55}]}

Out[57]=



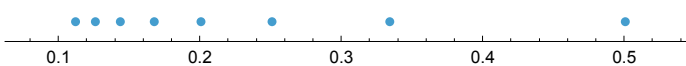
In[58]:= **Column**[{**NumberLinePlot**[Range[5]], **NumberLinePlot**[Range[5]]}]

Out[58]=



In[59]:= **NumberLinePlot**[{1/2, 1/3, 1/4, 1/5, 1/6, 1/7, 1/8, 1/9}]

Out[59]=



In[60]:=

In[61]:=

In[62]:=

In[63]:=