

# Eli — 2025-01-17 — PS 1

In[246]:=

**$1 + 2 + 3$**

Out[246]=

**6**

In[247]:=

**$1 + 2 + 3 + 4 + 5$**

Out[247]=

**15**

In[248]:=

**$1 \times 2 \times 3 \times 4 \times 5$**

Out[248]=

**120**

In[249]:=

**$5^2$**

Out[249]=

**25**

In[250]:=

**$3^4$**

Out[250]=

**81**

In[251]:=

**$10^{12}$**

Out[251]=

**1 000 000 000 000**

In[252]:=

**$3^{(7 \times 8)}$**

Out[252]=

**523 347 633 027 360 537 213 511 521**

In[253]:=

**$(4 - 2) (3 + 4)$**

Out[253]=

**14**

In[254]:=

**$29\,000 \times 73$**

Out[254]=

**2 117 000**

In[255]:=

**$-3 + -2 + -1 + 1 + 2 + 3$**

Out[255]=

**0**

Section 1 solutions look good!

Certainly it is nice that you did all the bonus questions that are only in the web edition, but generally I am imagining that we are only going to do the regular ones.

In[256]:=

**24 / 3**

Out[256]=

8

In[257]:=

**5 ^ 100**

Out[257]=

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[258]:=

**6 × 5 ^ 2 + 7**

Out[258]=

157

In[259]:=

**3 ^ 2 - 2 ^ 3**

Out[259]=

1

In[260]:=

**2 ^ 3 × 3 ^ 2**

Out[260]=

72

In[261]:=

**2 (8 - 11)**

Out[261]=

-6

In[262]:=

**Plus[7, 6, 5]**

Out[262]=

18

In[263]:=

**Times[2, Plus[3, 4]]**

Out[263]=

14

In[264]:=

**Max[6 × 8, 5 × 9]**

Out[264]=

48

In[265]:=

**RandomInteger[1000]**

Out[265]=

220

In[266]:=

**Plus[10, RandomInteger[10]]**

Out[266]=

20

Section 2 solutions look good!

```
In[267]:= Times[5, 4, 3, 2]
```

```
Out[267]= 120
```

```
In[268]:= Subtract[2, 3]
```

```
Out[268]= -1
```

```
In[269]:= Times[Plus[8, 7], Plus[9, 2]]
```

```
Out[269]= 165
```

```
In[270]:= Divide[Subtract[26, 89], 9]
```

```
Out[270]= -7
```

```
In[271]:= Subtract[100, Power[5, 2]]
```

```
Out[271]= 75
```

```
In[272]:= Max[3^5, 5^3]
```

```
Out[272]= 243
```

```
In[273]:= Times[3, Max[4^3, 3^4]]
```

```
Out[273]= 243
```

```
In[274]:= Plus[RandomInteger[1000], RandomInteger[1000]]
```

```
Out[274]= 974
```

```
In[275]:= Range[4]
```

```
Out[275]= {1, 2, 3, 4}
```

```
In[276]:= Range[100]
```

```
Out[276]= {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[277]:=

**Reverse[Range[4]]**

Out[277]=

{4, 3, 2, 1}

In[278]:=

**Reverse[Range[50]]**

Out[278]=

{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[279]:=

**Join[Range[4], Reverse[Range[5]]]**

Out[279]=

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

In[280]:=

**Join[Reverse[Range[3]], Reverse[Range[4]], Reverse[Range[5]]]**

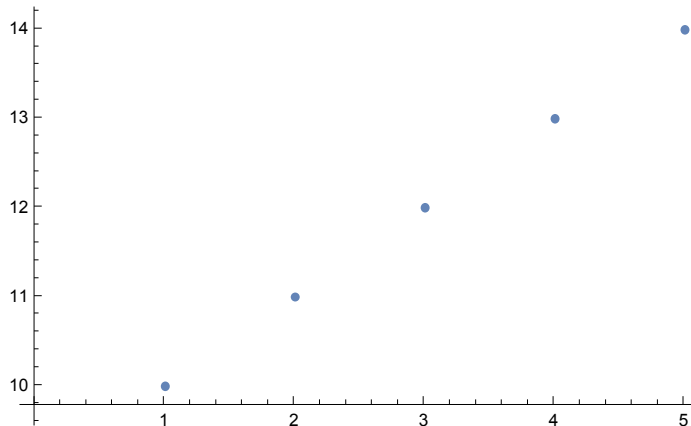
Out[280]=

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

In[281]:=

**ListPlot[Range[10, 14]]**

Out[281]=



In[282]:=

**Join[Range[10], Reverse[Range[10]], Range[10]]**

Out[282]=

{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}

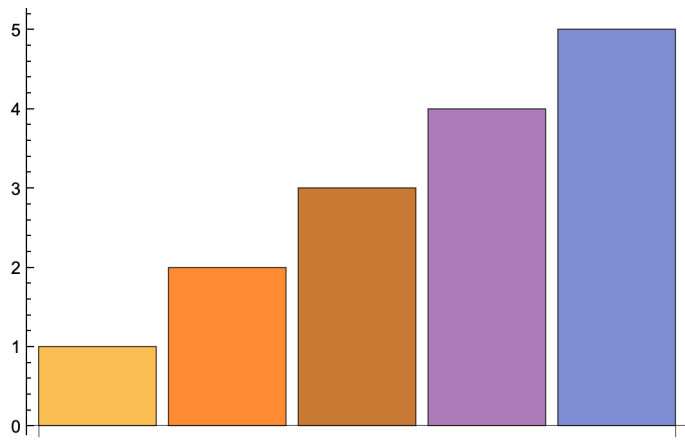
Section 3 solutions look pretty good. I am not seeing that you solved exactly the same problems that I solved.

For example, 3.

```
In[283]:=
```

```
BarChart[{Range[5]}]
```

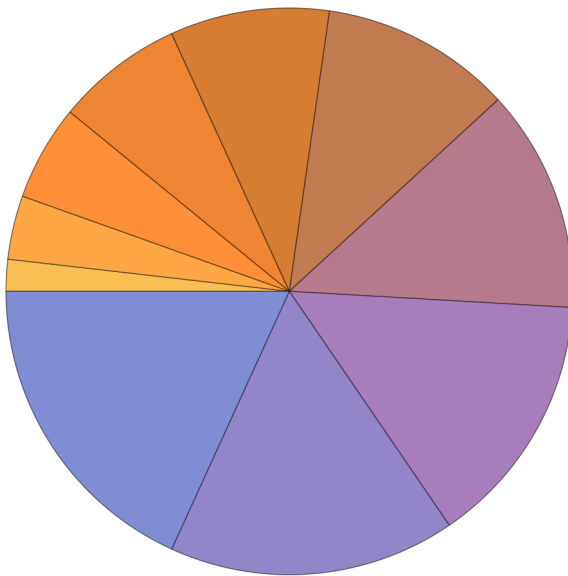
```
Out[283]=
```



```
In[284]:=
```

```
PieChart[{Range[10]}]
```

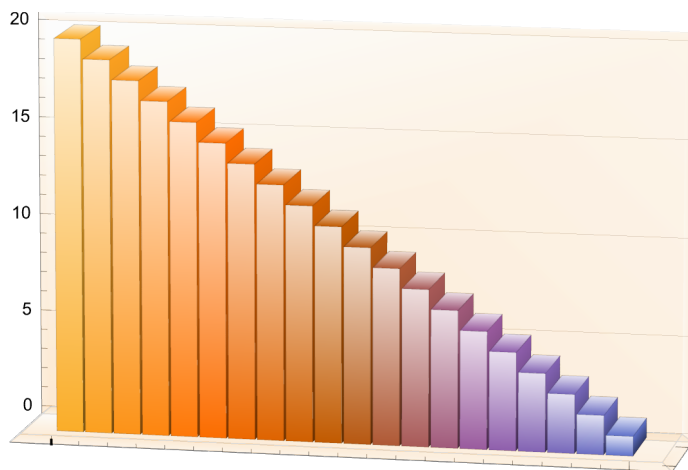
```
Out[284]=
```



In[285]:=

**BarChart3D[{Reverse[Range[20]]}]**

Out[285]=



In[286]:=

**Column[Range[5]]**

Out[286]=

1  
2  
3  
4  
5

In[287]:=

**NumberLinePlot[Power[Range[5], 2]]**

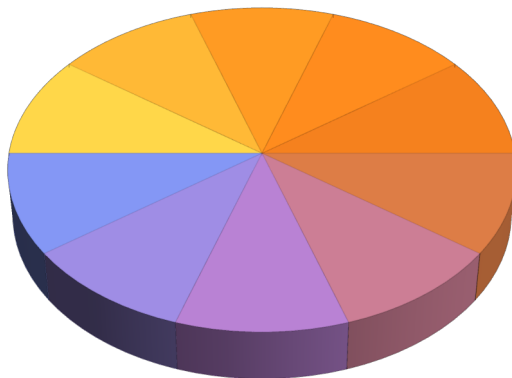
Out[287]=



In[288]:=

**PieChart3D[{1, 1, 1, 1, 1, 1, 1, 1, 1, 1}]**

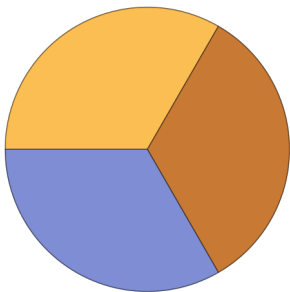
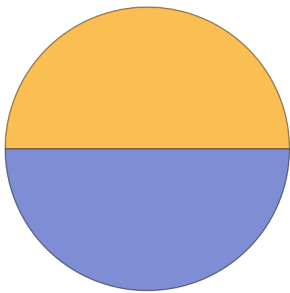
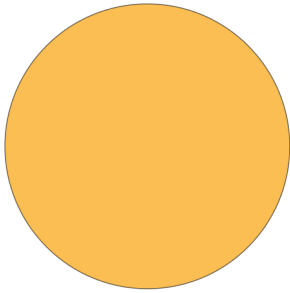
Out[288]=



In[289]:=

```
Column[{PieChart[{1}], PieChart[{1, 1}], PieChart[{1, 1, 1}]}]
```

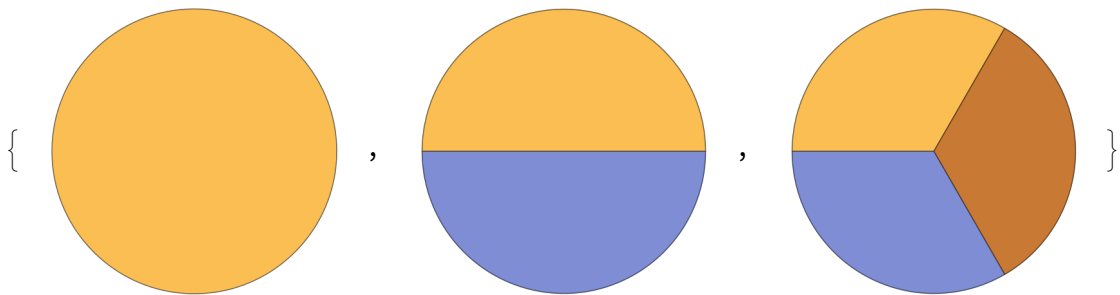
Out[289]=



In[290]:=

```
{PieChart[{1}], PieChart[{1, 1}], PieChart[{1, 1, 1}]}
```

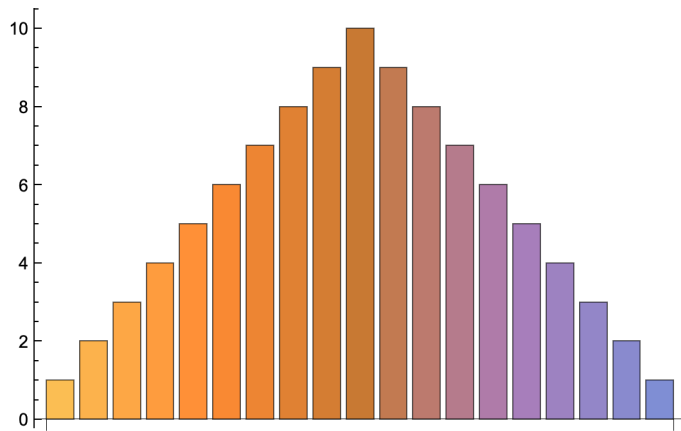
Out[290]=



In[291]:=

```
BarChart[{Join[Range[10], Reverse[Range[9]]]}]
```

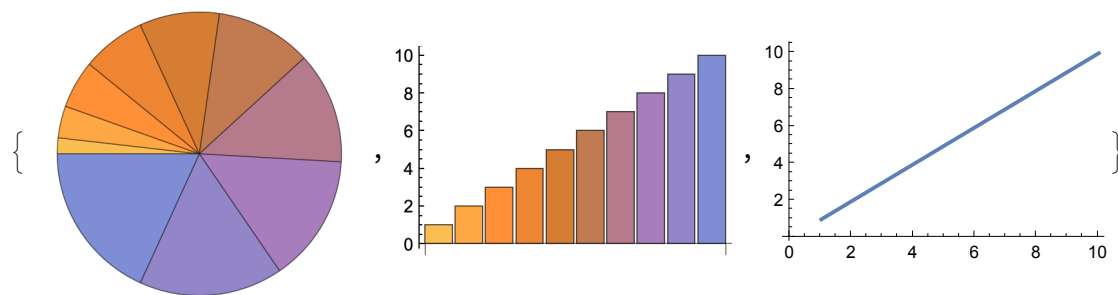
Out[291]=



In[292]:=

```
{PieChart[{Range[10]}], BarChart[{Range[10]}], ListLinePlot[{Range[10]}]}
```

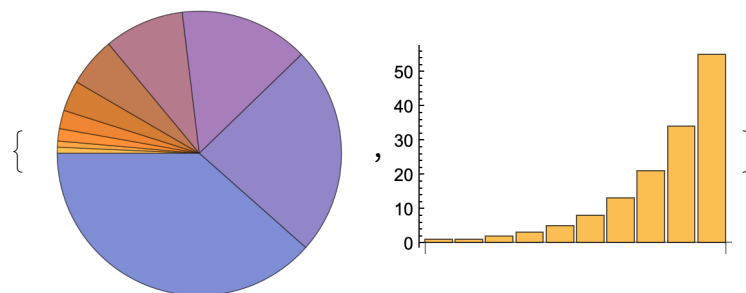
Out[292]=



In[293]:=

```
{PieChart[{1, 1, 2, 3, 5, 8, 13, 21, 34, 55}],  
BarChart[{1, 1, 2, 3, 5, 8, 13, 21, 34, 55}]}
```

Out[293]=

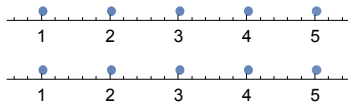




In[294]:=

**Column[{NumberLinePlot[{Range[5]}], NumberLinePlot[{Range[5]}]}]**

Out[294]=



In[295]:=

**NumberLinePlot[{1 / Range[9]}]**

Out[295]=

