

# Tahm — PS 2 — 2025-01-21

## Chapter 5

**List[Reverse[Range[10]^2]]**

Out[\*]=

{{100, 81, 64, 49, 36, 25, 16, 9, 4, 1}}

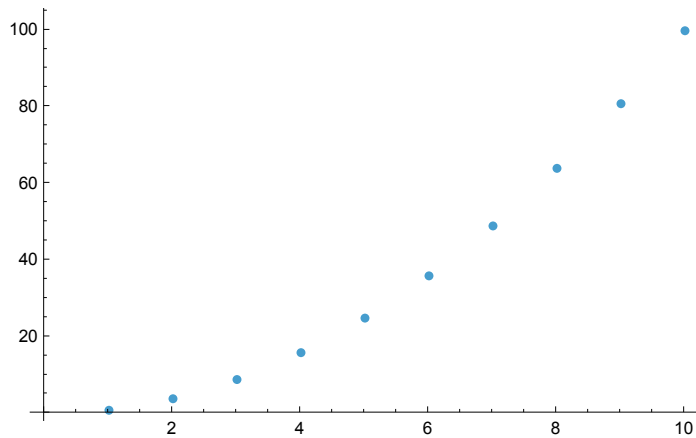
**Total[Range[10]^2]**

Out[\*]=

385

**ListPlot[Range[10]^2]**

Out[\*]=



**Sort[Join[Range[3], Range[3]]]**

Out[\*]=

{1, 1, 2, 2, 3, 3}

**9 + Range[11]**

Out[\*]=

{10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20}

**List[Sort[Join[(Range[5]^2), (Range[5]^3)]]]**

Out[\*]=

{{1, 1, 4, 8, 9, 16, 25, 27, 64, 125}}

**Length[IntegerDigits[2^128]]**

Out[\*]=

39

**First[IntegerDigits[2^128]]**

Out[\*]=

3

```
Take[IntegerDigits[2^100], 10]
```

```
Out[ ]=
```

```
{1, 2, 6, 7, 6, 5, 0, 6, 0, 0}
```

```
Max[IntegerDigits[2^20]]
```

```
Out[ ]=
```

```
8
```

```
Count[IntegerDigits[2^1000], 0]
```

```
Out[ ]=
```

```
28
```

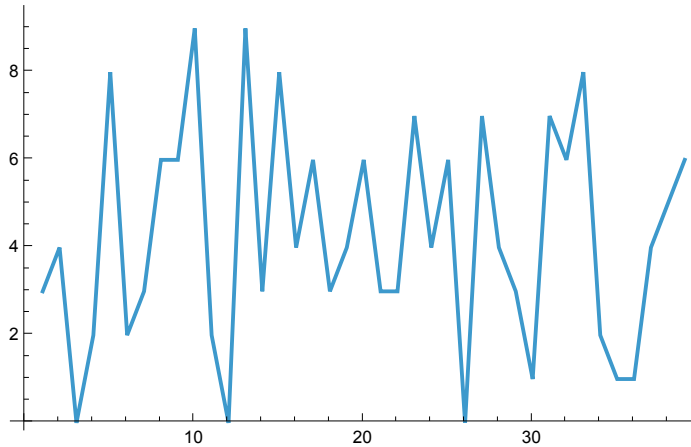
```
Part[Sort[IntegerDigits[2^20]], 2]
```

```
Out[ ]=
```

```
1
```

```
ListLinePlot[IntegerDigits[2^128]]
```

```
Out[ ]=
```



```
Take[Drop[Range[100], 10], 10]
```

```
Out[ ]=
```

```
{11, 12, 13, 14, 15, 16, 17, 18, 19, 20}
```

## Chapter 6

```
Table[1000, 5]
```

```
Out[ ]=
```

```
{1000, 1000, 1000, 1000, 1000}
```

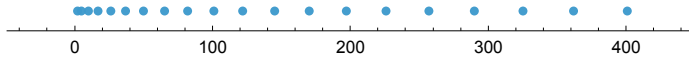
```
Table[n^3, {n, 10, 20}]
```

```
Out[ ]=
```

```
{1000, 1331, 1728, 2197, 2744, 3375, 4096, 4913, 5832, 6859, 8000}
```

**NumberLinePlot[Range[20]^2]**

Out[\*]=



**Table[n, {n, 2, 20, 2}]**

Out[\*]=

{2, 4, 6, 8, 10, 12, 14, 16, 18, 20}

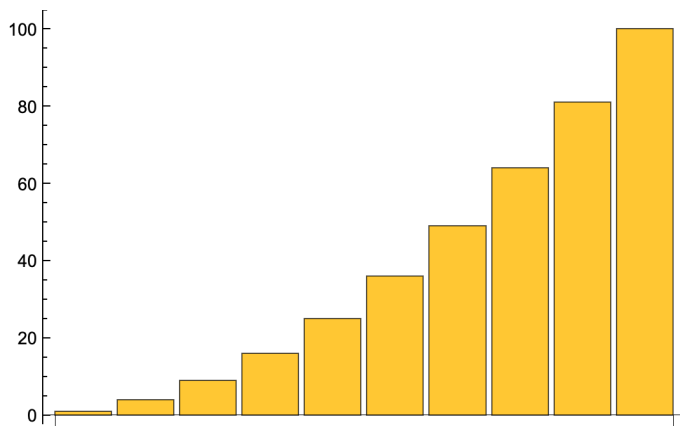
**Table[n, {n, 1, 10}]**

Out[\*]=

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

**BarChart[Range[10]^2]**

Out[\*]=



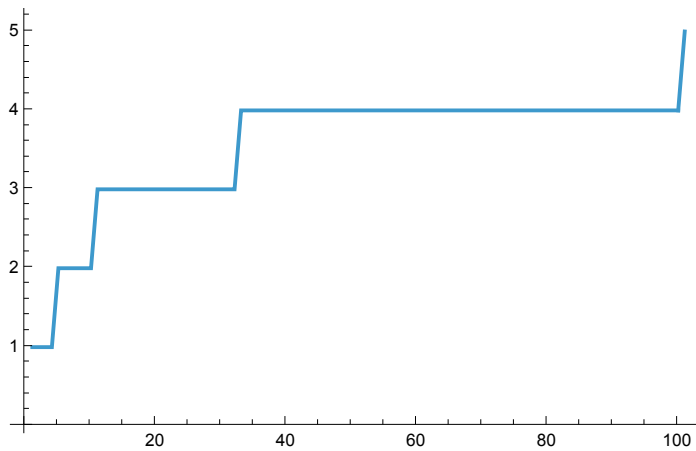
**Table[IntegerDigits[n^2], {n, 1, 10}]**

Out[\*]=

{{1}, {4}, {9}, {1, 6}, {2, 5}, {3, 6}, {4, 9}, {6, 4}, {8, 1}, {1, 0, 0}}

**ListLinePlot[Table[Length[IntegerDigits[n^2]], {n, 0, 100}]]**

Out[\*]=



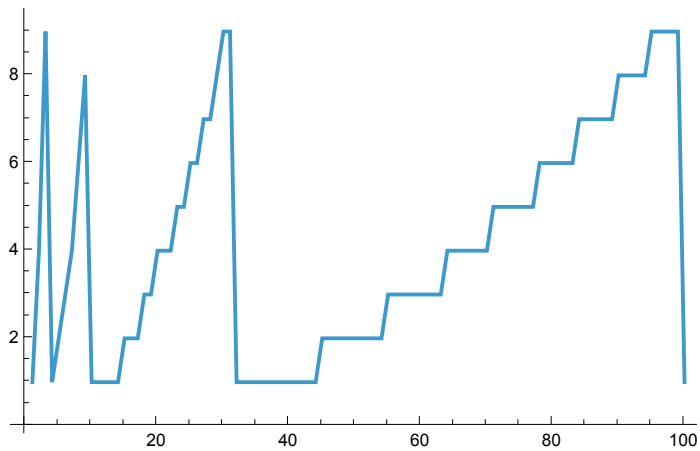
```
Table[First[IntegerDigits[n^2]], {n, 20}]
```

Out[ ]:=

```
{1, 4, 9, 1, 2, 3, 4, 6, 8, 1, 1, 1, 1, 1, 2, 2, 2, 3, 3, 4}
```

```
ListLinePlot[Table[First[IntegerDigits[n^2]], {n, 100}]]
```

Out[ ]:=



In[ ]:=

## Chapter 7

**Syntax:** Expression "{n, 0, 20, 2}" has no closing "}".

```
{Red, Yellow, Green}
```

Out[ ]:=

```
{Red, Yellow, Green}
```

```
Column[{Red, Yellow, Green}]
```

Out[ ]:=



```
ColorNegate[Orange]
```

Out[ ]:=



```
Table[Hue[x], {x, 0, 1.5, 0.1}]
```

Out[ ]:=

```
{Red, Orange, Yellow, Green, Cyan, Blue, Purple, Magenta, Pink, Red, Orange, Yellow, Green, Cyan}
```

```
Table[Hue[RGBColor[1, x, 1]], {x, 0, 1, .05}]
```

Out[ ]:=

```
{Pink, Magenta, Purple, Blue, Cyan, Green, Yellow, Orange, Red, Pink, Magenta, Purple, Blue, Cyan, Green, Yellow, Orange, Red}
```

```
Blend[{RGBColor[1, 0, 1], RGBColor[1, 1, 0]}]
```

Out[\*]=



```
Table[Blend[{Yellow, Hue[x]}], {x, 0, 1, 0.05}]
```

Out[\*]=

```
{, , , , , , , , , , , , , , , , , , , , , , , , }
```

```
Table[Style[x, Hue[x]], {x, 0, 1, 0.1}]
```

Out[\*]=

```
{0., 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.}
```

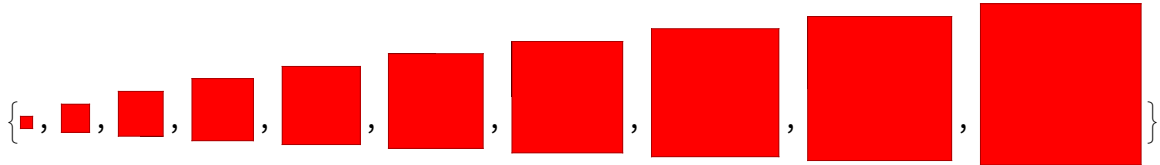
```
Style[Purple, 100]
```

Out[\*]=



```
Table[Style[Red, x], {x, 10, 100, 10}]
```

Out[\*]=



```
Style[999, Red, 100]
```

Out[\*]=

999

```
Table[Style[x^2, x^2], {x, 1, 10, 1}]
```

Out[\*]=

```
{, , 9, 16, 25, 36, 49, 64, 81, 100}
```

... **Syntax:** Incomplete expression; more input is needed .

```
Part[{Red, Yellow, Green}, RandomInteger[{1, 3}, 100]]
```

Out[\*]=

```
{
  Red, Red, Green, Red, Yellow, Red, Green, Red, Yellow, Green, Green, Green, Green, Green, Yellow, Green, Yellow, Red, Red, Green, Red, Green, Red, Yellow, Green, Red,
  Yellow, Yellow, Green, Yellow, Red, Red, Red, Yellow, Red, Red, Yellow, Red, Yellow, Green, Green, Yellow, Green, Green, Green, Green, Yellow, Green, Yellow, Green,
  Yellow, Red, Green, Red, Yellow, Yellow, Green, Green, Red, Yellow, Red, Red, Yellow, Yellow, Red, Green, Green, Green, Red, Red, Red, Green, Green, Red, Green,
  Yellow, Red, Yellow, Green, Green, Red, Yellow, Yellow, Yellow, Green, Green, Red, Green, Green, Yellow, Red, Red, Green, Yellow, Green, Green, Yellow, Yellow, Yellow}

```

```
Table[Style[Part[IntegerDigits[2^1000], n],
  3 * Part[IntegerDigits[2^1000], n]], {n, 1, 50, 1}]
```

Out[\*]=

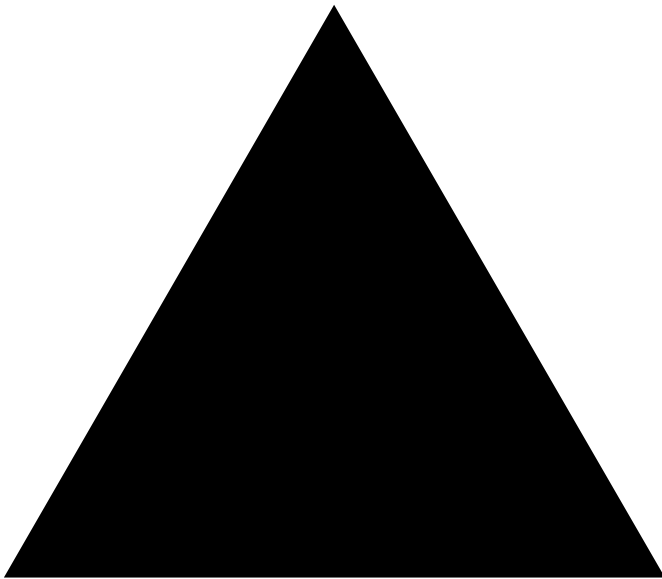
```
{
  1, 2, 7, 3, 5, 4, 8, 6, 9, 7, 8, 6, 2, 6, 7, 3, 2, 9, 4, 8, 4, 2, 5,
  4, 9, 6, 8, 5, 6, 4, 4, 8, 7, 5, 5}

```

## Chapter 8

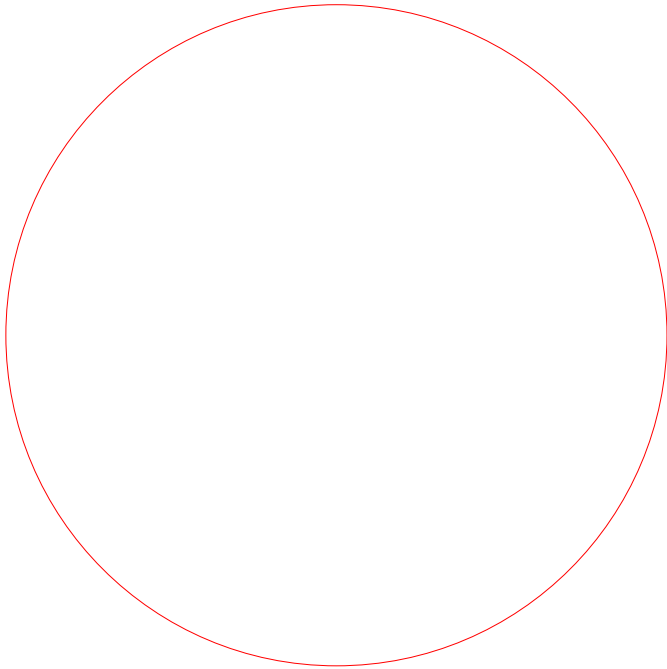
```
Graphics[RegularPolygon[3]]
```

Out[\*]=



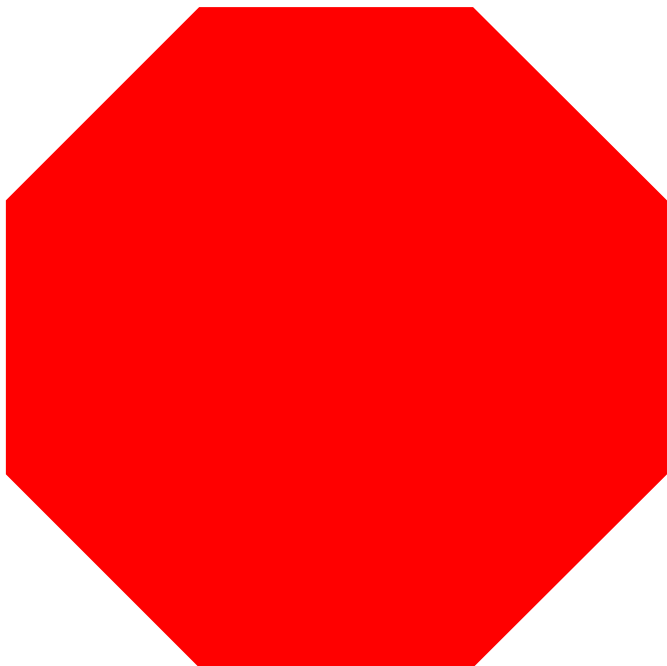
```
Graphics[Style[Circle[], Red]]
```

Out[8]=



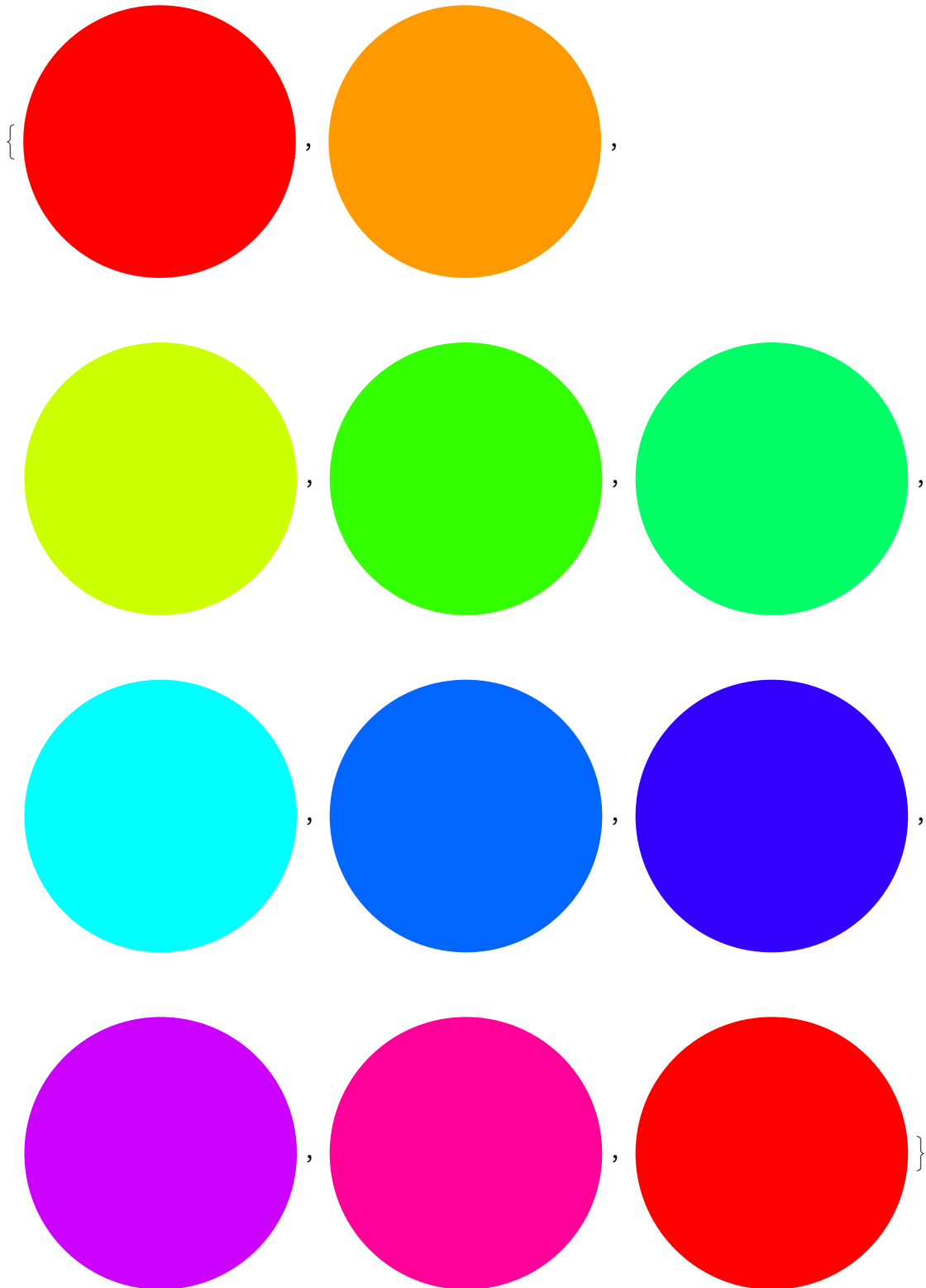
```
Graphics[Style[RegularPolygon[8], Red]]
```

Out[9]=



```
Table[Graphics[Style[Disk[], Hue[x]]], {x, 0, 1, 0.1}]
```

Out[8]=

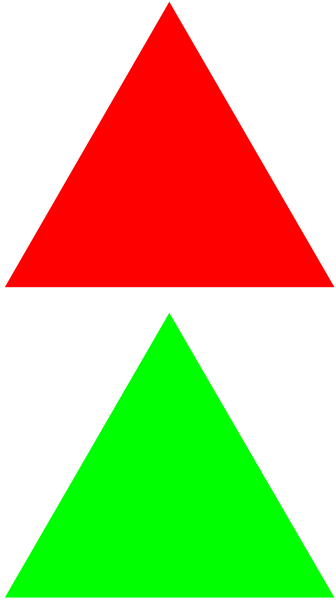




 **Syntax:** Incomplete expression; more input is needed .

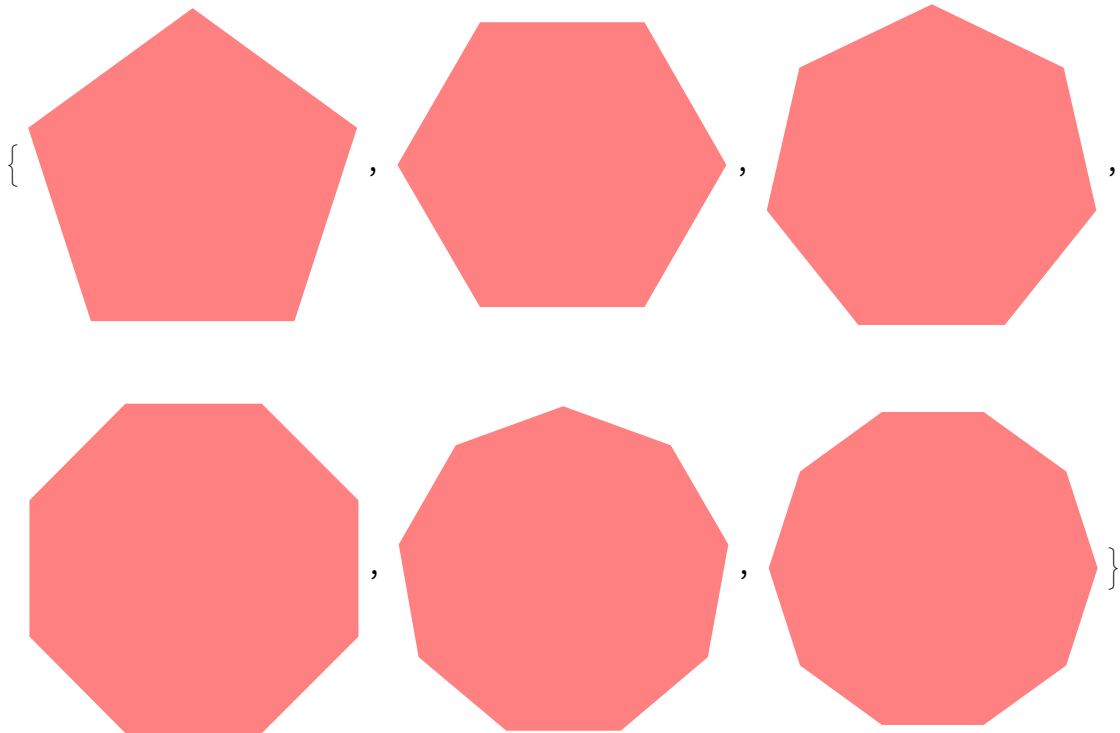
```
Column[{Graphics[Style[RegularPolygon[3], Red]],  
Graphics[Style[RegularPolygon[3], Green]]}]
```

Out[ ]=



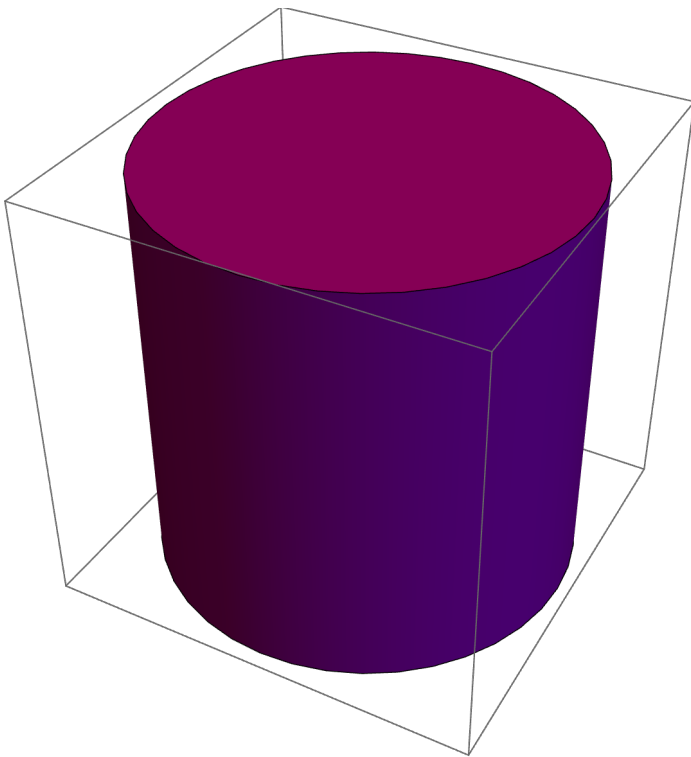
```
Table[Graphics[Style[RegularPolygon[x], Pink]], {x, 5, 10, 1}]
```

Out[8]=



```
Graphics3D[Style[Cylinder[], Purple]]
```

Out[9]=



```
Graphics[Reverse[Table[Style[RegularPolygon[x], RandomColor[x]], {x, 3, 8, 1}]]]
```

Out[8]=

