# Color and Styles

In[163]:= **Red**

Out[163]= ■

In[164]:= **Green**

Out[164]= ■

In[165]:= **Blue**

Out[165]= ■

In[166]:= **Style[1234, Blue]**

Out[166]= 1234

In[167]:= **Style[1234, 100, Red]**

Out[167]= 1234

In[168]:= **Table[Style["ABCD", Red, x], {x, 10, 20}]**

Out[168]= { ABCD, ABCD, ABCD, ABCD, ABCD, ABCD, ABCD, ABCD, ABCD, ABCD, ABCD }

In[169]:= **Style[1234, Red, 100, Underlined, Italic, Bold]**

Out[169]= *1234*

In[170]:= **ColorNegate[Blue]**

Out[170]= ■

In[171]:= **ColorNegate[Yellow]**

Out[171]= ■

In[172]:= **Blend[{Yellow, Red}]**

Out[172]= ■

In[173]:= **RGBColor[1, 0, 0]**

Out[173]= ■

In[174]:= `Table[Hue[x], {x, 0, 1, 0.05}]`

Out[174]= {■, ■}

In[175]:= `RandomColor[]`

Out[175]= ■

In[176]:= `RandomColor[20]`

Out[176]= {■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■}

In[177]:= `Table[Style["ABC", 30, Hue[x]], {x, 0, 1, 0.05}]`

Out[177]= {ABC, ABC, ABC, ABC, ABC, ABC,
ABC, ABC, ABC, ABC, ABC, ABC, ABC,
ABC, ABC, ABC, ABC, ABC, ABC, ABC, ABC}

In[178]:= `Table[Blend[{Hue[x], Yellow}], {x, 0, 1, 0.05}]`

Out[178]= {■, ■}

In[179]:= `Table[Style[x, Hue[x]], {x, 0, 1, 0.1}]`

Out[179]= {0., 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.}

In[180]:= `Style[Purple, 100]`

Out[180]= ■

In[181]:= `Table[Style[x^2, x^2], {x, 1, 10, 1}]`

Out[181]= {, ·, ₉, 16, 25, 36, 49, 64, 81, 100}

In[182]:= `DiscretePlot[Palindrome[Prime[x]], {x, 2, 50}]`

Out[182]=

In[183]:= **Range[100]**

Out[183]= {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[184]:= **PalindromeQ[100] && PrimeQ[100]**

Out[184]= False

In[185]:= **Table[If[PalindromeQ[x] && PrimeQ[x], x], {x, 2, 100, 1}]**

Out[185]= {2, 3, Null, 5, Null, 7, Null, Null, Null, 11, Null, Null, Null, Null, Null, Null,
Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null,
Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null,
Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null,
Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null,
Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null,
Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null, Null}

In[186]:= **PrimePalindromes[n_Integer] := Select[Range@n, (PrimeQ[#] && PalindromeQ[#]) &]**

In[187]:= **PrimePalindromes[100]**

Out[187]= {2, 3, 5, 7, 11}

In[188]:= **BaseForm[1000, 16]**

Out[188]//BaseForm=
$3e8_{16}$

Out[•]= { }

In[189]:= **2^1000**

Out[189]= 10 715 086 071 862 673 209 484 250 490 600 018 105 614 048 117 055 336 074 437 503 883 703 510 511 249 ‹
361 224 931 983 788 156 958 581 275 946 729 175 531 468 251 871 452 856 923 140 435 984 577 574 698 ‹
574 803 934 567 774 824 230 985 421 074 605 062 371 141 877 954 182 153 046 474 983 581 941 267 398 ‹
767 559 165 543 946 077 062 914 571 196 477 686 542 167 660 429 831 652 624 386 837 205 668 069 376

In[190]:= **Part[RealDigits[2^1000, 10, 50], 1]**

Out[190]= {1, 0, 7, 1, 5, 0, 8, 6, 0, 7, 1, 8, 6, 2, 6, 7, 3, 2, 0, 9, 4, 8, 4, 2,
5, 0, 4, 9, 0, 6, 0, 0, 0, 1, 8, 1, 0, 5, 6, 1, 4, 0, 4, 8, 1, 1, 7, 0, 5, 5}

In[191]:= **Table[Style[x, x * 3], {x, Part[RealDigits[2^1000, 10, 50], 1]}]**

Out[191]= {., ., 7, ., 5, ., 8, 6, ., 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}

In[192]:= `Column[Table[Hue[x], {x, 0, 1, 0.05}]]`

Out[192]=

In[193]:= `Table[RGBColor[1 - x, x, 0], {x, 0, 1, 0.05}]`

Out[193]= `{■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■}`

In[194]:= `Join[Table[RGBColor[0, x, 0], {x, 0, 1, 0.1}],`
         `Table[RGBColor[0, x, 0], {x, 0.9, 0, -0.1}]]`

Out[194]= `{■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■, ■}`

In[195]:= `MatrixForm[Style[Range[10], Red],`
         `Style[Range[10], Green]]`

Out[195]//MatrixForm=
         {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}

In[196]:= `{Column[{Style[Range[10], Red], Style[Range[10], Green]}]}`

Out[196]= $\left\{ \begin{array}{l} \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\} \\ \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\} \end{array} \right\}$

In[197]:= `{Grid[{Table[Style[x, Red], {x, 1, 10}], Table[Style[x, Green], {x, 1, 10}]}]}`

Out[197]= $\left\{ \begin{array}{cccccccccc} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 \\ 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 \end{array} \right\}$

In[198]:= `Table[Column[{Style[x, Red], Style[x, Green]}], {x, 1, 10}]`

Out[198]= $\left\{ \begin{array}{l} 1 \\ 1 \end{array}, \begin{array}{l} 2 \\ 2 \end{array}, \begin{array}{l} 3 \\ 3 \end{array}, \begin{array}{l} 4 \\ 4 \end{array}, \begin{array}{l} 5 \\ 5 \end{array}, \begin{array}{l} 6 \\ 6 \end{array}, \begin{array}{l} 7 \\ 7 \end{array}, \begin{array}{l} 8 \\ 8 \end{array}, \begin{array}{l} 9 \\ 9 \end{array}, \begin{array}{l} 10 \\ 10 \end{array} \right\}$

In[199]:= `Table[Column[{Style[x], Style[x, Bold], Style[x, Italic]}], {x, 1, 10}]`

Out[199]= $\left\{ \begin{array}{l} 1 \\ \mathbf{1} \\ \mathit{1} \end{array}, \begin{array}{l} 2 \\ \mathbf{2} \\ \mathit{2} \end{array}, \begin{array}{l} 3 \\ \mathbf{3} \\ \mathit{3} \end{array}, \begin{array}{l} 4 \\ \mathbf{4} \\ \mathit{4} \end{array}, \begin{array}{l} 5 \\ \mathbf{5} \\ \mathit{5} \end{array}, \begin{array}{l} 6 \\ \mathbf{6} \\ \mathit{6} \end{array}, \begin{array}{l} 7 \\ \mathbf{7} \\ \mathit{7} \end{array}, \begin{array}{l} 8 \\ \mathbf{8} \\ \mathit{8} \end{array}, \begin{array}{l} 9 \\ \mathbf{9} \\ \mathit{9} \end{array}, \begin{array}{l} 10 \\ \mathbf{10} \\ \mathit{10} \end{array} \right\}$