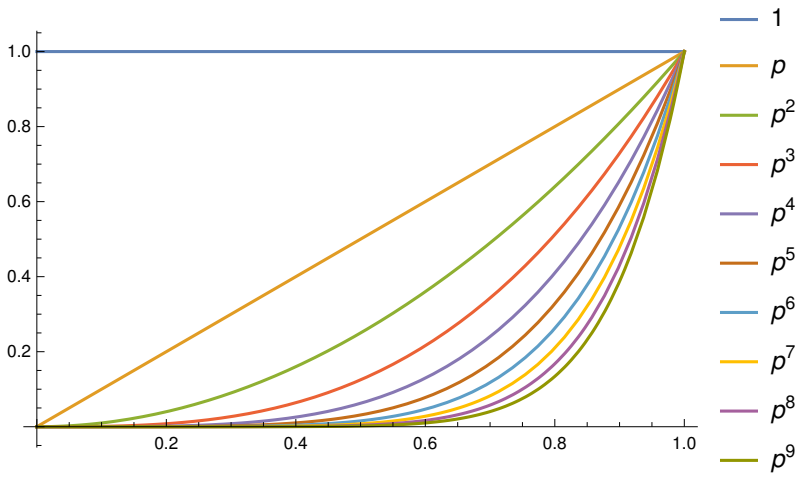
Comparison between the two bases for polynomials

In[1]:=
```
n = 9
pbase = Table[p^i, {i, 0, n}]
Plot[pbase, {p, 0, 1}, PlotLegends → "Expressions"]
basef[i_, m_, p_] = p^i (1 - p)^(m - i);
base = Table[basef[i, n, p], {i, 0, n}]
basescale = Table[Binomial[n, i] * basef[i, n, p], {i, 0, n}]
Plot[basescale, {p, 0, 1}, PlotLegends → "Expressions", PlotRange → All]
Plot[base, {p, 0, 1}, PlotLegends → "Expressions"]
```

Out[1]= 9

Out[2]= $\{1, p, p^2, p^3, p^4, p^5, p^6, p^7, p^8, p^9\}$

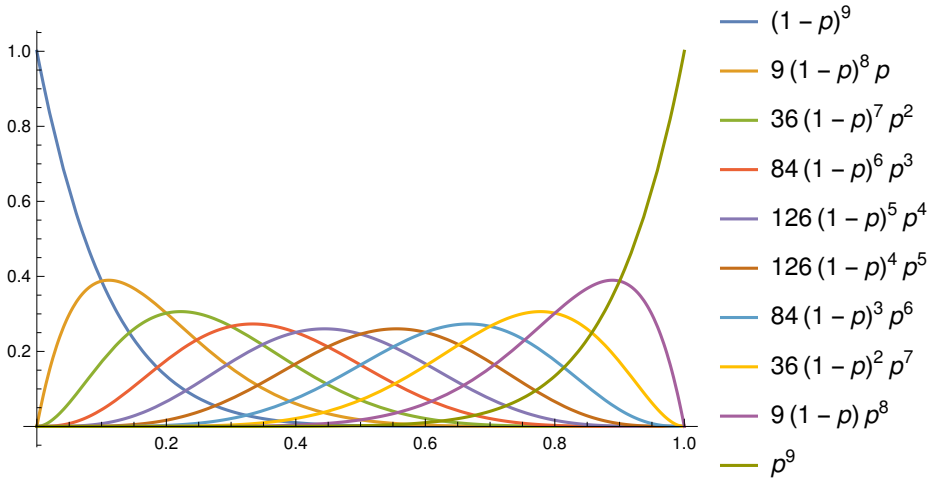
Out[3]=



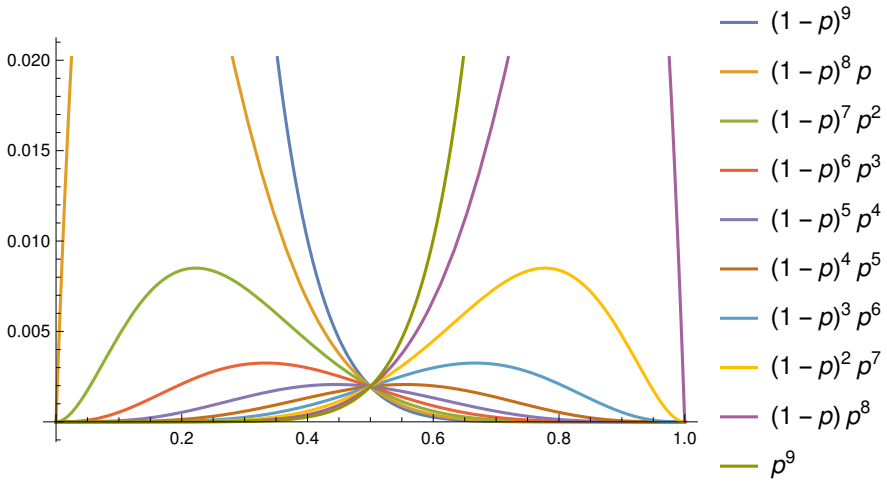
Out[5]= $\{(1-p)^9, (1-p)^8 p, (1-p)^7 p^2, (1-p)^6 p^3, (1-p)^5 p^4, (1-p)^4 p^5, (1-p)^3 p^6, (1-p)^2 p^7, (1-p) p^8, p^9\}$

Out[6]= $\{(1-p)^9, 9(1-p)^8 p, 36(1-p)^7 p^2, 84(1-p)^6 p^3,$
$126(1-p)^5 p^4, 126(1-p)^4 p^5, 84(1-p)^3 p^6, 36(1-p)^2 p^7, 9(1-p) p^8, p^9\}$

Out[7]=



Out[8]=


0.020
0.015
0.010
0.005
0.2
0.4
0.6
0.8
1.0
$(1-p)^9$
$(1-p)^8\,p$
$(1-p)^7\,p^2$
$(1-p)^6\,p^3$
$(1-p)^5\,p^4$
$(1-p)^4\,p^5$
$(1-p)^3\,p^6$
$(1-p)^2\,p^7$
$(1-p)\,p^8$
p^9