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In[ ]:= (*Comparison of the current yield and yield to maturity *)
A = 6
T = 30
P[y_] := A * ((1 / y) - (1 / (y ((1 + y) ^ T)))) + (100 / ((1 + y) ^ T))
(* Convexity of Price and yield *)
Plot[P[y], {y, .005, .20}, AxesLabel -> {yield, P_B}]

(* Current yield *)
g[y_] := A / P[y]

(* Relationship between current yield and yield;
Note the current yield and yield to maturity are equal when the bond sells at par,
indicated in red *)
Plot[{g[y], y}, {y, .005, .10}, Epilog -> {PointSize[Large], Red, Point[ {.06, .06}]},
PlotLabel -> {Current yield vs. y},
AxesLabel -> {pct, {CY, y}}]
(* Plot of current yield *)
Plot[g[y], {y, .005, .10}, AxesLabel -> {pct, {CY}}]

```

Out[]:= 6

Out[]:= 30



