```
Filename:BEZIER
"FORMING A CUBIC BEZIER CURVE USING FOUR POINTS"↲
"ENTER THE ENDPOINTS (X0,Y0) AND (X3,Y3)"↲
"X0="?→A↲
"Y0="?→B↲
"X3="?→C↲
"Y3="?→D↲
"ENTER CONTROL POINTS(X1,Y1) AND (X2,Y2)"↲
"X1="?→E↲
"Y1="?→F↲
"X2="?→G↲
"Y2="?→H↲
3×(E−A)→I↲
3×(G−E)−I→J↲
C−A−I−J→K↲
3×(F−B)→L↲
3×(H−F)−L→M↲
D−B−L−M→N↲
"THE PARAMETRIC EQUATIONS ARE↲
X(T)=AX×T^3+BX×T²+CX×T+X0 "↲
"WHERE AX=":K◢
"BX=":J◢
"CX=":I◢
"AND X0=":A◢
"AND"↲
"Y(T)=AY×T^3+BY×T²+CY×T+Y0"↲
"WHERE AY=":N◢
"BY=":M◢
"CY=":L◢
"AND Y0=":B◢
{A,C,E,G}→List 2↲
{B,D,F,H}→List 1↲
Min(List 1)→P↲
Max(List 1)→Q↲
Min(List 2)→R↲
Max(List 2)→S↲
ViewWindow R−.5,S+.5,.1,P−.5,Q+.5,0.5,0,1,.01↲
"PLOT THE FOUR POINTS↲
"↲
Green Plot A,B:Green Plot E,F◢
Green Plot G,H:Green Plot C,D◢
"NOW PLOT THE BEZIER CURVE↲
"↲
ParamType↲
For 0→T To 1 Step .1↲
"K×(T^3)+J×(T²)+I×T+A"→Xt1↲
"N×(T^3)+M×(T²)+L×T+B"→Yt1↲
ParamType:G SelOn 1↲
ThickG1↲
DrawGraph↲
Next
```