



附源码

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\begin{tikzpicture}[line width=1.5pt,scale=1.618]
  \coordinate [label=below:$B$] (A) at (0,0);
  \coordinate [label=above:$A$] (B) at (0.5,2);
  \coordinate [label=below:$C$] (D) at (3,0);
  \coordinate [label=above:$D$] (C) at (3.5,2);
  \draw[red] (A)--(B)--(C)--(D)--cycle;
  \path[draw,name path=m] (C)--($ (A)!8mm!(B) $)node[left]{$E$};
  \path[draw,name path=n] (A)--($ (C)!8mm!(B) $)node[above]{$F$};
  \path[draw,name intersections={of=m and n,by=G}] (D)--(G)node[above left]{$G$};
  \draw[dashed] ($ (A)! (G)! (B) $)node[left]{$M$}--($ (C)! (G)! (D) $)node[right]{$N$};
  \draw[dashed] ($ (B)! (G)! (C) $)node[above]{$P$}--($ (A)! (G)! (D) $)node[below]{$Q$};
\end{tikzpicture}

```