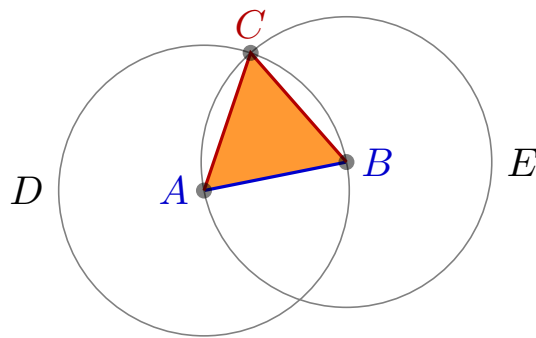


# Walk Through the Tutorial 4 of TikZ Manual

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Analyze the Elements Example in Chapter 3 of the TikZ manual line by line.

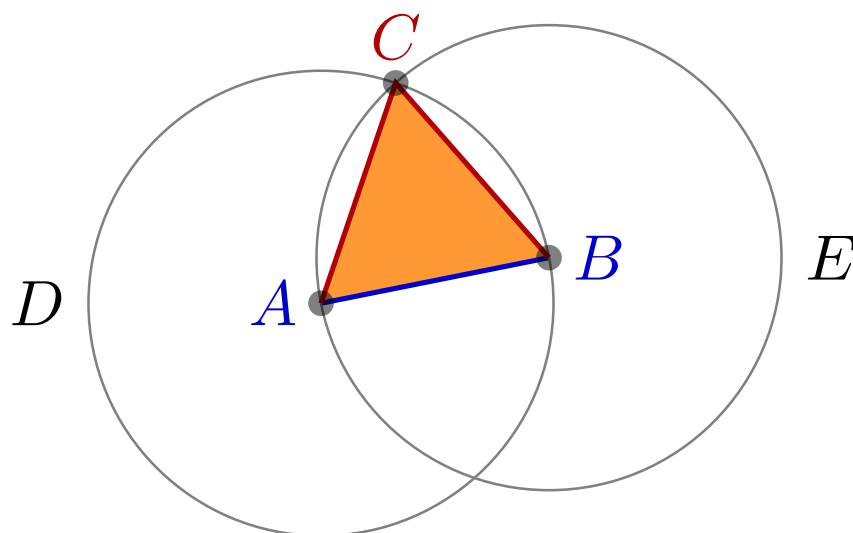
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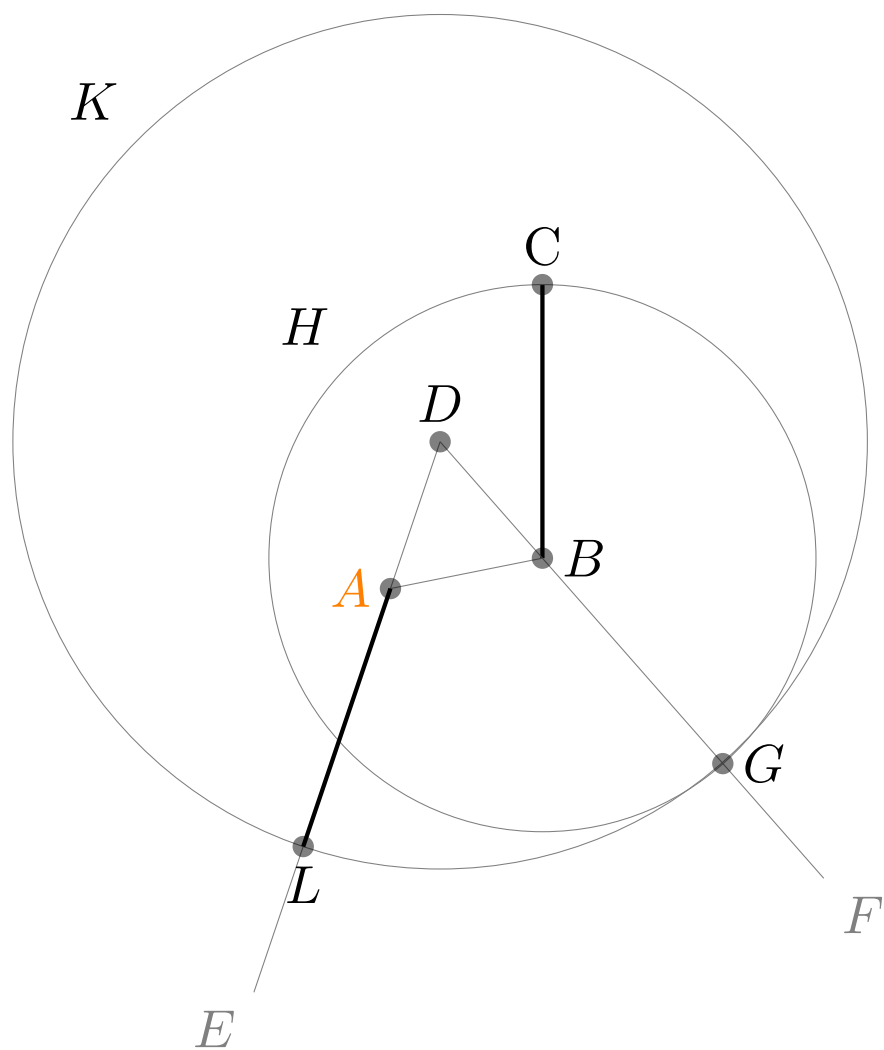
1 \begin{tikzpicture}
2   [thick,help lines/.style={thin,draw=black!50}]
3   \def\A{\textcolor{input}{$A$}}
4   \def\B{\textcolor{input}{$B$}}
5   \def\C{\textcolor{output}{$C$}}
6   \def\D{$D$}
7   \def\E{$E$}
8
9   \colorlet{input}{blue!80!black}
10  \colorlet{output}{red!70!black}
11  \colorlet{triangle}{orange}
12
13  \coordinate [label=left:\A] (A) at ($(0,0) + .0*(rand,rand)$)
14  ;
15  \coordinate [label=right:\B] (B) at ($(1.25,0.25) + .0*(rand,
16    rand)$);
17
18  \draw [input] (A) -- (B);
19
20  \node [name path=D,help lines,draw,label=left:\D] (D) at (A)
21    [circle through = (B)] {};
22  \node [name path=E,help lines,draw,label=right:\E] (E) at (B)
23    [circle through = (A)] {};
24
25  \path [name intersections = {of =D and E, by={ [label=above:\C
26    ]C}}];
27  \draw [output] (A) -- (C) -- (B);
28
29  \foreach \point in {A,B,C}
30  \fill[black,opacity=.5] (\point) circle (2pt);
31  \begin{pgfonlayer}{background}
32    \fill[triangle!80] (A) -- (C) -- (B) -- cycle;
33  \end{pgfonlayer}
34
35  % \node [below right, text width = 10cm,align = justify] at
36  %   (4,3) {
37  %     \small\textbf{Proposition I} \par
38  %     \emph{To construct an \textcolor{triangle}{equilateral
39  %       triangle}
40  %     on a given \textcolor{input}{finite straight line.}}

```

```
34 % \par \vskip 1em
35 % Let  $A\!B$  be the given  $\textcolor{green}{\text{finite straight}}$ 
     $\textcolor{green}{\text{line}}$ .  $\dots$ 
36 % };
37
38 \end{tikzpicture}
```

Listing 1: Euclid Amber version of the Elements



**1 Proposition II**

## 2 A Lecture Map Tutorial

