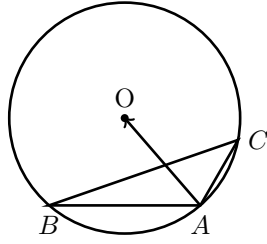


如图, $\odot O$ 为 $\triangle ABC$ 的外接圆, $AB = 2, AC = 1, \angle BAC = 120^\circ$. 试用 $\overrightarrow{AB}, \overrightarrow{AC}$ 表示 \overrightarrow{AO} .



附源代码:

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```

\vspace{12pt}
\begin{tikzpicture}[line width=1pt]
\coordinate [label=below:$B$] (B) at (0,0);
\coordinate [label=below:$A$] (A) at (2,0);
\coordinate [label=right:$C$] (C) at ($(A)!0.5!-120:(B)$);
\coordinate (C1) at ($(A)!0.25!-120:(B)$);
\path[name path=m](C1)--($(C1)!5!90:(C)$);
\path[name path=n](1,0)--($(1,0)!2!90:(A)$);
\path[name intersections={of=m and n,by=0}];
\node[draw,circle through=(B)]at (O) {};
\draw(A)--(B)--(C)--cycle;
\draw[->](A)--(O)node[above]{O};
\draw[fill] (O) circle (1pt);
\end{tikzpicture}

```