**Problem 14.** Point $P$ is on line $\ell$, line $\ell'$ is perpendicular to $\ell$, and points $A$ and $B$ are on $\ell'$ and on the same side of $\ell$. See the Figure below. Point $X$ is also on $\ell$ with $\angle AXB = \frac{1}{2} \angle APB$. Describe the steps in a straightedge and compass construction to find *all* possible positions for $X$. 

![Diagram of the problem](image-url)