HW9 has become a discussion.

If you hand something in, I will read and comment, but no letter grade.
John's construction
Lara used this in her construction... inversion!
Inversion in $\gamma$
Inversion in $\gamma$

Inversion
- Takes circles to circles;
- Reverses orientation;
- Preserves angles.
What happens when we invert $\eta$? We get:

\[ \text{Grid} \]
Inversion in \( \mathbb{R} \) yields:
Proof: The inverse $\beta'$ of $\beta$ in $\gamma$ is a circle containing $Q$, $P$, $P'$ so $\beta' = \beta$.

Thus $\beta$ is orthogonal to $\gamma$.

Theorem: Suppose $P$, $P'$ are inverse in $\gamma$.

Every circle through $P$ and $P'$ is orthogonal to $\gamma$. 
Invert in a circle centered at \( P' \):

Find the unique circle through \( X \) orthogonal to every circle through \( P \) and \( P' \).