8. [5 points] Consider the polynomial: $G(x)=x^{5}-6 x^{3}+9 x$. Find the zero(s) of $G$. Your answer should be exact, and must be found algebraically. If there are no zeros, write none in the space provided:

Zero(s): $\qquad$
9. [5 points] Below is part of the graph of a polynomial $P(w)$. Assume that the point $(1,1.25)$ lies on the graph of $y=P(w)$ and $P(w)$ has exactly three distinct zeros. Find a possible formula for $P(w)$ so that it has the smallest degree possible. Show your work carefully.


$$
P(w)=
$$

$\qquad$

