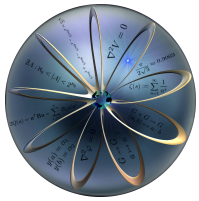

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every algebraically closed field is perfect

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Proposition 1. *Every algebraically closed field is perfect*

Proof. Let K be an algebraically closed field of prime characteristic p. Take $a \in K$. Then the polynomial $X^p - a$ admits a zero in K. It follows that a admits a pth root in K. Since a is arbitrary we have proved that the field K is perfect. □