Duy Nhan Cao

2.5

$\log_g(a)$ is even $\leftrightarrow$ $\log_g(a) = 2k$ $(k \in \mathbb{F}_p)$.

$\leftrightarrow$ $g^{\log_g(a)} = g^{2k}$

$\leftrightarrow$ $a = g^{2k}$

$\leftrightarrow$ $\sqrt{a} = g^k \in \mathbb{F}_p$

$\leftrightarrow$ $\sqrt{a} \in \mathbb{F}_p$