

3.91  
28

28 3.60 √ 775

3.91  
K9

$$\begin{aligned}\left(\frac{1+i\sqrt{3}}{1-i}\right)^{40} &= \left(\frac{2\text{cis}60}{\sqrt{2}\text{cis}315}\right)^{40} = \left(\sqrt{2}\text{cis}(-255)\right)^{40} = 2^{20}\text{cis}\left(40\cdot\frac{-17\pi}{12}\right) \\ &= 2^{20}\text{cis}\left(-\frac{2}{3}\pi\right) = 2^{20}\left(-\frac{1}{2} - \frac{\sqrt{3}}{2}i\right) = -2^{19}(1+\sqrt{3}i)\end{aligned}$$