Rewrite each of the following as a single power of 7.

1. $(49^{\frac{1}{3}})(7^{-\frac{1}{4}})$

$(7^2)^{\frac{1}{3}} = 7^{\frac{2}{3}} \cdot 7^{-\frac{1}{4}}$

$7^{\frac{8}{12}} \cdot 7^{-\frac{3}{12}} = 7^{\frac{5}{12}}$

2. $\frac{\sqrt[3]{7}}{\sqrt{7}}$

$\sqrt[3]{7} \div \sqrt[2]{7}$

$7^{\frac{1}{3}} \div 7^{\frac{1}{2}} = 7^{\frac{2}{6}} \div 7^{\frac{3}{6}} = 7^{-\frac{1}{6}}$

$\frac{1}{7^{\frac{1}{6}}}$