

Simplify

1. $3^{\frac{4}{3}} \cdot 3^{\frac{5}{3}}$

2. $(7^3)^{\frac{2}{3}}$

3. $8^{-\frac{5}{3}} \cdot 8^{\frac{6}{3}}$

4. $\frac{32^{\frac{7}{5}}}{32^{\frac{9}{5}}}$

5. $(64^{\frac{3}{2}})^{-\frac{1}{3}}$