# **15.1b – Simplifying Radicals with Variables**

Simplify using the perfect roots chart to help.

1. $\sqrt{512x^{2}}$ 2. $\sqrt{125x^{4}y^{9}}$

3. $\sqrt[3]{40x^{8}}$ 4. $\sqrt[4]{128x^{7}y^{7}}$

5. $\sqrt[5]{96x^{6}y^{3}}$ 6. $\sqrt[6]{256x^{8}}$

7. $\sqrt[7]{512x^{3}}$ 8. $\sqrt[9]{1536x^{5}y^{12}}$