Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_

15.1a – Simplifying Radicals with Variables

Simplify.

1. $\sqrt{27x^{2}}$ 2. $\sqrt{150x^{4}}$

3. $\sqrt{32x^{4}}$ 4. $\sqrt{392x^{2}}$

5. $\sqrt{96x}$ 6. $\sqrt{144x^{2}}$

7. $\sqrt{512x^{3}}$ 8. $\sqrt{216x^{2}}$

9. $\sqrt{196x^{4}}$ 10. $\sqrt{384x^{2}}$

11. $\sqrt{112x^{2}y^{4}}$ 12. $\sqrt{128x^{4}y^{4}}$

13. $\sqrt{112x^{2}y^{3}}$ 14. $\sqrt{64x^{4}y}$

15. $\sqrt{80x^{3}y^{2}}$ 16. $\sqrt{12xy}$

17. $\sqrt{48x^{3}y^{4}}$ 18. $\sqrt{192xy^{3}}$

19. $\sqrt{175x^{4}y^{4}}$ 20. $\sqrt{75xy^{3}}$