Unit 7 – Test Review **Ringbloom** **Algebra 2A**
Exponents and Radicals

Name: _____ Hour: _____ Score: _____

Simplify. Write your answer using only positive exponents.

1. $6^5 \cdot 6^{-9}$

2. $(10x)^{-2}$

3. $\frac{b^8}{b^3}$

4. $\left(\frac{2}{m}\right)^{-5}$

5. $\frac{2a^5b \cdot 3a}{4a^2b^6}$

6. $\frac{(4x^{-5} \cdot 3y)^0 \cdot 5x}{10x^3}$

Simplify each expression completely. NO DECIMALS!!

7. $\sqrt{243}$

8. $-\sqrt{75}$

9. $\sqrt[4]{48}$

10. $\sqrt{32a^2b^3}$ **11.** $-3\sqrt{49y^3z}$ **12.** $\sqrt[3]{250m^2n^6}$

Write the expression in exponential form.

13. $\sqrt[8]{12}$ **14**. $(\sqrt[3]{7})^4$

Write the expression in radical form.

15. $28^{1/4}$ **16**. $82^{5/3}$

Simplify the expression. SHOW YOUR WORK!

17. $625^{3/4}$ **18**. $243^{-2/5}$

19. $(64x^6)^{1/2}$ **20.** $(216x^9)^{2/3}$