

Name _____ Date _____ Pd _____

Quiz Review 5.1 – 5.2

Simplify with (round to the thousandths) and without a calculator. TWO ANSWERS!!

1. $\sqrt[3]{125}$

2. $\sqrt[4]{284}$

3. $\sqrt[2]{54}$

4. $\sqrt[3]{81}$

Simplify completely. No negative exponents or radicals in the denominator. Leave answers exact.

5. $\pm\sqrt{256}$

6. $\sqrt[3]{-216}$

7. $\sqrt[5]{c^5d^{15}}$

8. $\sqrt[4]{16m^6}$

9. $\sqrt{5} + \sqrt[2]{20}$

10. $5\sqrt{12} - 3\sqrt[2]{75}$

11. $6\sqrt[5]{11} - 8\sqrt[5]{11}$

12. $\frac{-2}{3+\sqrt{5}}$

13. $\frac{3}{4+\sqrt{2}}$

14. $\frac{\sqrt{10}}{\sqrt{3}-1}$

15. $(3\sqrt{5})(-2\sqrt{3})$

16. $(\sqrt[2]{12})^2$

17. $(\sqrt{8} + \sqrt{12})^2$

18. $\left(\frac{8}{27}\right)^{-\frac{2}{3}}$

19. $\sqrt{\frac{25}{4}}$

20. $\frac{\sqrt[3]{81}}{\sqrt[3]{3}}$

21. $\left(x^{-\frac{1}{3}}\right)^{\frac{3}{2}}$

22. $6^{\frac{1}{3}} \cdot 6^{\frac{5}{3}}$

23. $\frac{8^{\frac{1}{4}}}{8^{\frac{3}{4}}}$

Solve the equation. Check for extraneous solutions. Remember your \pm when appropriate.

24. $6 + 2x\sqrt{3} = 0$

25. $\sqrt[2]{3n - 5} - 3 = 4$

26. $\sqrt[4]{2x - 1} = 2$