

Algebra 2 Radicals Practice

Date _____

COPY DOWN THE ORIGINAL PROBLEM AND SHOW ALL WORK ON LINE PAPER

Simplifying radical expressions

In 19 – 27, simplify completely. Assume all variable are positive.

19. $\sqrt{36x^3}$

20. $\sqrt[3]{125y^2z^4}$

21. $\sqrt{18k^6}$

22. $\sqrt[3]{-16a^{12}}$

23. $\sqrt{x^2y^{10}z}$

24. $\sqrt[4]{256s^7t^{12}}$

25. $\sqrt[3]{216x^4y^3}$

26. $\sqrt{75r^3}$

27. $\sqrt[4]{625u^5v^8}$

Adding and Subtracting radical expressions

Add or subtract if possible.

4. $9\sqrt{3} + 2\sqrt{3}$

5. $5\sqrt{2} + 2\sqrt{3}$

6. $3\sqrt{7} - 7\sqrt[3]{x}$

7. $14\sqrt[3]{xy} - 3\sqrt[3]{xy}$

In 12 -27, simplify each term and then add or subtract if possible.

12. $3\sqrt{32} + 2\sqrt{50}$

13. $\sqrt{200} - \sqrt{72}$

14. $\sqrt[3]{81} - 3\sqrt[3]{3}$

15. $2\sqrt[4]{48} + 3\sqrt[4]{243}$

22. $\sqrt{28} + 4\sqrt{63} - 2\sqrt{7}$

23. $6\sqrt{40} - 2\sqrt{90} + 3\sqrt{160}$

24. $3\sqrt{12} + 7\sqrt{75} - \sqrt{54}$

25. $4\sqrt[3]{81} + 2\sqrt[3]{72} - 3\sqrt[3]{24}$

26. $3\sqrt{225x} + 5\sqrt{144x}$

27. $6\sqrt{45y^2} + 4\sqrt{20y^2}$