

Algebra 2C
Practice Quiz on 6-3 and 6-4

Name: _____

Date: _____ Hr: _____

SHOW ALL WORK

For #1-simplify if possible.

1. $7\sqrt[3]{5} - 4\sqrt{5}$

1. _____

2. $3x\sqrt{xy} + 4x\sqrt{xy}$

2. _____

3. $\sqrt{18} + \sqrt{32}$

3. _____

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

4. _____

5. $\sqrt[3]{250} + \sqrt[3]{54} - \sqrt[3]{16}$

5. _____

For #6-8, multiply

6. $(3 + \sqrt{5})(1 + \sqrt{5})$

6. _____

7. $(\sqrt{3} + \sqrt{5})^2$

7. _____

8. $(2\sqrt{6} + 8)(2\sqrt{6} - 8)$

8. _____

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

9. _____

For #10-12, simplify each expression.

10. $64^{1/2}$

10. _____

11. $11^{1/2} \cdot 11^{1/2}$

11. _____

12. $3^{1/2} \cdot 12^{1/2}$

12. _____

For #13-15, write each expression in radical form.

13. $x^{2/7}$

13. _____

14. $y^{-9/8}$

14. _____

15. $x^{1.5}$

15. _____

For #16-17, write each expression in exponential form.

16. $\sqrt{a^5}$

16. _____

17. $(\sqrt[3]{b})^3$

17. _____

For #18-20, simplify. Do not leave answers with negative exponents.

18. $3x^{-1/3}y^{7/4} \cdot 4xy^{5/3}$

18. _____

19. $\frac{3vu^{\frac{1}{4}}}{4u^{-\frac{3}{2}}}$

19. _____

20. $(9x^{5/4}y^{3/2})^{1/2}$

20. _____

