

Name: _____

Period: _____

Radical and Exponent Chapter Study Guide

1)	$(x^2)(5x^5)$
2)	$4y^3 \cdot 6y$
3)	$(a^2b^5)^3$
4)	$(2x)^0$
5)	$\frac{4x^0y^{-3}z^3}{4y}$
6)	$\left(\frac{2a^5b^3}{4a}\right)^2$
7)	$\frac{x^2}{4x^5}$
8)	$\frac{1}{9^{\frac{1}{2}}}$

9)	$8^{\frac{2}{3}}$
10)	$625^{\frac{3}{4}}$
11)	$2\sqrt{25}$
12)	$\sqrt{12} \cdot \sqrt{8}$
13)	$\sqrt{72xy^5z^6}$
14)	$\frac{\sqrt{8}}{\sqrt{100}}$
15)	$3\sqrt{2} + 5\sqrt{2}$
16)	$3\sqrt{2} + 4\sqrt{50}$

Simplify by Using the Factor Tree

17) $\sqrt{200}$

18) $\sqrt[3]{400x^4y^6}$

19) $\sqrt[5]{32x^{10}z^{11}}$

20) $\sqrt{81}$

Simplify:

21) $7\sqrt{2} + 5\sqrt{2} - 4\sqrt[3]{7} - 11\sqrt[3]{7}$

22) $5\sqrt{6} \cdot 6\sqrt{10}$

23) $\frac{1}{\sqrt{5}}$

24) $\frac{3}{\sqrt{6}}$

25) $\frac{\sqrt{2}}{\sqrt{3}}$

26) $\frac{3}{6\sqrt{2}}$

27) $x^{\frac{1}{2}} \cdot x^{\frac{1}{3}}$

28) $(64x^4)^{\frac{1}{3}}$

29) $(2x^2)^{\frac{1}{2}}$

30) $(x^{\frac{8}{9}}y^{\frac{16}{9}})^{\frac{3}{4}}$

Solve:

31) $\sqrt{x} = 10$

32) $\sqrt[4]{x} + 5 = 6$

33) $3\sqrt[3]{x+3} - 4 = 8$

34) $\sqrt{\frac{x}{3}} = 3$

How did you feel while completing this homework?

1: I understood and could complete essentially no problems on this homework.	2: I could complete less than half of the problems on this homework.	3: I could complete most of the problems but got stuck on some of them as well.	4: I understood and could complete essentially all problems on this homework

If not at a four yet, what steps do you plan to take to further your understanding of this assignment? (See Mr. Scheuer before/after school, ask Mr. Scheuer for help during class, attend Intervention, get help from a tutor, get help from other resources, etc.)