

Name: _____ Period: _____ Score: _____ / _____ = _____ % = _____

HW 6-9 - Operations with Roots Day 2

DO NOT USE A SCIENTIFIC CALCULATOR ON THIS ASSIGNMENT!

Simplify each expression.

1. $7\sqrt{45} = 21\sqrt{5}$

6. $5\sqrt{72}$

11. $5\sqrt{12} = 10\sqrt{3}$

2. $\sqrt{72} + \sqrt{50} - \sqrt{8}$

7. $\sqrt{6} \cdot \sqrt{8} = 4\sqrt{3}$

12. $\frac{\sqrt{22}}{\sqrt{2}}$

3. $\sqrt{6} \cdot \sqrt{15} = 3\sqrt{10}$

8. $3\sqrt{75}$

13. $\frac{\sqrt{27}}{\sqrt{3}} = 3$

4. $\frac{\sqrt{21}}{\sqrt{7}}$

9. $4\sqrt{3} + 2\sqrt{12} = 8\sqrt{3}$

14. $6\sqrt{7} - 8\sqrt{7} - \sqrt{3}$

5. $\frac{\sqrt{63}}{\sqrt{7}} = 3$

10. $\sqrt{14} \cdot \sqrt{21}$

15. $9\sqrt{28}$
 $18\sqrt{7}$

Simplify each expression.

16. $2\sqrt{45} + 4\sqrt{20}$

17. $3\sqrt{10} \cdot 2\sqrt{15}$

18. $6\sqrt{49}$

$30\sqrt{6}$

19. $8\sqrt{15} + 3\sqrt{20} - 3\sqrt{15} - \sqrt{20}$

20. $5\sqrt{13} + 6\sqrt{5} - \sqrt{13} + 2\sqrt{5}$

$5\sqrt{15} + 4\sqrt{5}$

Simplify the expression.

21. $\frac{10x^3y^9}{2x^2y^7}$ $5xy^2$

23. $(-4x^{-8}y^5)(9x^{15}y^{-2})$
 $-36x^7y^3$

22. $\frac{12x^2y^4}{4x^6y^{-7}}$

24. $(-4x^3y^5)^4$

Change the fractions to a decimal.

25. $\frac{3}{11} = 0.\overline{27}$

26. $\frac{7}{16} =$

Change the decimal to a fraction.

27. $0.\overline{57}$
 $\frac{57}{99}$

Use the set of ordered pair to answer questions 28-30.

$\{(-5,6), (1,13), (-4,-4), (4,8), (-2,-4)\}$

28. State the domain.

29. State the range.

$R: \{-4, 6, 8, 13\}$

30. Is the set of ordered pairs a function? Explain.