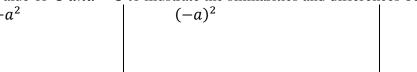
2B It's Rad 2B Square

Name: ______ Per: _____

Objectives: Solve basic equations including exponents. Simplify square roots. Due: Sept 18th / Sept 19th

1. Use the value of 3 and -3 to illustrate the similarities and differences between the three expressions:



Evaluate the following expressions (plug in the numbers) if a = 4, b = -2, and c = 8.

- 2. $3(a^2 + b) ac$
- 3. $\frac{a}{b} + c^2(a b)$ 4. $\frac{a}{b} + c^2(a + b)$

- 5. $a^2 + b^2 + (-c)^2$
- 6. $a^2 + (b+c)^2$
- 7. $a^2 + b^2 + -c^2$

Write the following square roots with the lowest possible integer radicand. MUST SHOW WORK.

8. $\sqrt{81}$

9. $\sqrt{50}$

10. $\sqrt{100}$

11. $\sqrt{75}$

- 12. $\sqrt{-25}$
- 13. $\sqrt{25}$

14. $\sqrt{8}$

15. $\sqrt{49}$

- 16. $\sqrt{64}$
- 17. $\sqrt{40}$

18. $\sqrt{99}$

19. $\sqrt{63}$

Solve each equation for y and check your answer. Give exact answers with the lowest integer radicand.

$$20. \ 5y^2 = 2(12 + y^2)$$

$$21. \ 2(y^2 + 1) = 10$$

20.
$$5y^2 = 2(12 + y^2)$$
 21. $2(y^2 + 1) = 10$ 22. $3y^2 - y - 12 = -y + 24$

Solve each equation for x and check your answers.

23.
$$5(x^2 + 4) = 5 + 6x^2$$

24.
$$2(x^2 + 2) = 8 - 2x^2$$

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EX: Solve for *t* and describe your steps:

d = rt + s Given

Reflexive Property -s = -s

Additive Property of Equality d-s=rt

 $\div r = \div r$ Reflexive Property

 $\frac{d-s}{}=t$ Multiplicative Property of Equality

25. Solve for *m* and describe your steps:

$$z = 3(r + m^2)$$

26. Solve for *f* and describe your steps:

$$s = 3f^2 - 24$$

28. Solve for w and describe your steps:

$$A = 2l + 2w$$

27. Solve for *t* and describe your steps:

$$h - r = 16t + r$$

29. Solve for t and describe your steps:

$$h = 8t^2 - q \qquad \qquad$$

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Solve the following:

$$30.3x^3 = 24$$

$$31. x^3 = 81$$

$$32.\ 2x^3 + 5 = 53$$

- 33. The Westlake Golf Team rents time at the local golf course for \$250 for the day. The course charges an additional \$15 for each player that shows up to practice.
 - a. Define your variables.
 - b. Write an equation to show how much the team will pay to practice at the local golf course.
 - c. If 12 players come to practice, how much will they need to pay?
 - d. What if the team paid \$520, how many players came to practice?