

Name: _____ Date: _____ Period: _____

ALGEBRA 1 READINESS – SUMMER PACKET

Evaluate/Simplify each expression. **Don't use calculator and show all work.**

1. $25 - 8 \cdot 2 + 3^2$

2. $\left(\frac{4(-3)}{11-5(1)} \right)^3$

3. $(5 + 3) \div 2 + (6^2 - 3)$

4. Evaluate: $b^2 - 4ac$ if $a = 5$, $b = -2$, $c = -3$

5. $-20 - 37$

6. $-63 - -79$

7. $\frac{-42}{-6}$

8. $\frac{3}{4} + \frac{5}{6}$

9. $\frac{1}{2} - \frac{2}{9}$

10. $\frac{9}{15} \cdot \frac{5}{7}$

11. $\frac{2}{3} \div \frac{6}{12}$

12. $8x + 3 - 5x - 9$

13. $8n - 14n - 3n^2 + 2$

14. $12y - 8 + 4y + y - 2$

15. $10 - 6(x - 2)$

16. $(x + 4y) - (2x + 2y)$

17. $2(x + 5y + 1) - 4(3x - y - 2)$

18. $(-4)^2$

19. $(\frac{1}{2})^4$

Solve each equation.

20. $9 + \frac{w}{-4} = 5$

21. $-18 - 11r = 26$

22. $-25 = 7 - 2d$

23. $5n - 16 - 8n = -10$

24. $-5(x - 3) = -25$

25. $\frac{1}{5}(3x - 85) = 4x$

26. $-4x - 4 > 12$

27. Find the slope of the line that passes through the points $(-4, -4)$ and $(4, 8)$.

28. What is the slope of the line identified by $7y = -2(x - 4)$?

29. Write an equation in slope-intercept form for the line that passes through the points $(3, 2)$ and $(-9, 6)$.

30. Simplify the expression. $(x^2y^6z^5)(x^4y^5z^3)$

Write an algebraic expression for the word phrase.

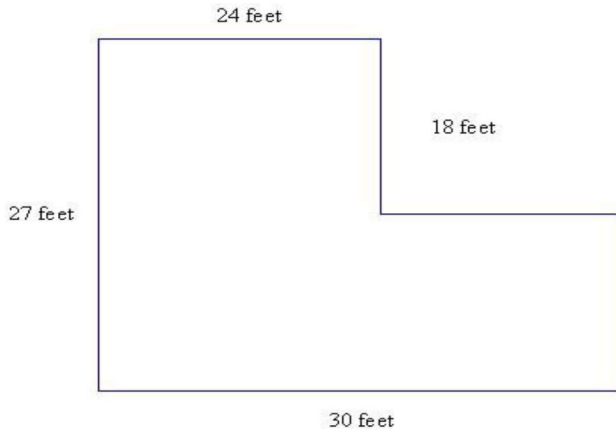
31. three less than the quotient of 20 and x

Write an algebraic equation and solve.

32. The cost of a gallon of gasoline g is \$3.25 less than two times the cost of a gallon of diesel d . If a gallon of gasoline costs \$3.95, what is the cost of a gallon of diesel? Write and solve the equation.

33. Anton joined a golf club. He pays an annual membership fee of \$895 and greens fee of \$30 each time he plays golf. Last year he paid \$2,065 as a total golfing fee. How many games did he play? Write and solve the equation.

34. Find the area of the composite figure below.



35. Find the perimeter of a rectangle with a length of $6x + 3$ and a width of $-2x - 5$.