Factor completely. If the polynomial cannot be factored, write PRIME.

30. \( y^2 + 10y + 25 \) 
31. \( 4x^2 - 4x + 1 \) 
32. \( x^2 + 81 \) 
33. \( x^2 + x + 6 \) 
34. \( y^2 - 100 \)

Solve for the variable.

35. \( 7m + 5(3 - m) = 19 \)
36. \( 2w - 4(w + 2) = 5(w + 4) \)
37. \( x^2 + 5x = 6 \)
38. \( 3x^2 + 24x + 45 = 0 \)
39. \( 7x^2 + 22x + 3 = 0 \)
40. \( 4a^2 - 1 = 0 \)
41. \( x^2 + 18x + 81 = 0 \)
42. \( \frac{a - 3}{8} = \frac{3}{4} \)
43. \( \frac{n}{3} = \frac{n + 4}{7} \)

Write the equation described and solve for the variable.

44. A number increased by -16 is -21. Find the number.
   Equation: ______________________
   Solution: ______________________

45. The sum of the measures of two angles is 90°. One angle is 27° more than twice the other angle. Find the measure of each angle.
   Equation: ______________________
   Solution: ______________________
NAME: ________________________________

PERIOD ____________

Classify each statement as TRUE or FALSE. If your answer is false, explain why.

1. If a = b, then ac = bc  ________________  2. a - b = b - a  ________________
3. a + (-a) = 1  ________________  4. The reciprocal of 0 is 0.  ________________
5. The opposite of -1 is 1.  ________________  6. a^2 + b^2 = (a + b)^2  ________________
7. a + a + a = a^3  ________________  8. The reciprocal of 1 is -1.  ________________
9. - | -(1) | = -1  ________________  10. 6 / 0 = 0  ________________

Evaluate if m = -2, n = -1, p = 3, r = -6, and t = 10.

11. \( \frac{(mp)^2 - r^2}{r^2} \)  ________________  12. \( \frac{r^3}{n} - \frac{p^3}{p} \)  ________________
13. \( \frac{n^8 + (r - 1)^2}{(p + 2)^3} \)  ________________  14. \( mt^9 \)  ________________
15. \( (mt)^9 \)  ________________  16. \( r \cdot | p - t | \)  ________________

Perform the indicated operations. Express the answers in simplest form. No denominator equals zero.

17. \( (-5x)^2 (2xy^3)^3 \)  ________________  18. \( (-4m^2n^4p)^2 \)  ________________
19. \([8a + 5(3 - a)] - 17 \)  ________________  20. \( \frac{-48d^4h^4k^4}{-3d^4hk^4} \)  ________________
21. \( 5a - a \)  ________________  22. \( (22n - k) - (13n - k) \)  ________________
23. \( 6 + 3(x - 4) \)  ________________  24. \( 5a(a + 3 - b) \)  ________________
25. \( (2m + 6)^2 \)  ________________  26. \( (2n - 9)(3n + 4) \)  ________________
27. \( -3xy(5 - 2xy^4 + 3x^2y^3 - y^5) \)  ________________
28. \( (4x + 7)(4x - 7) \)  ________________
29. \( x(x + 1)(x + 2) \)  ________________
Geometry Summer Assignment 2014

Enclosed is your summer packet. It reviews various important concepts that you have learned in ALGEBRA I. It is to be completed and all work must be numbered and shown on loose leaf. Circle or box the answer to each problem. Put answers only on the worksheets. Staple it all together and hand it in during class on Friday, September 5\textsuperscript{th}. Make sure your name is on it and the period that we meet.

This assignment will count as a TEST grade for the 1\textsuperscript{st} Quarter.

Have a great rest of your summer!

Thank you, Mrs. Castagno