

Name: _____

Hour: _____

Algebra Pre-Requisite Assessment for Geometry

Directions: The problems below are simply to determine how much algebra you remember. You will not be graded on this, but try your best so that your teacher can determine which skills need to be covered in class. Please show all work. If you don't remember how to do a problem, simply write "don't remember".

Simplify each expression.

1. $31x^2 + 9x^2$ 1. _____

2. $(3x^2 - 8x + 24) - (9x^2 + 21x + 12)$ 2. _____

3. $(2x + 3)(7x + 11)$ 3. _____

4. $(x - 7)^2$ 4. _____

Factor each expression completely.

5. $6x^2 - 8x^4$ 5. _____

6. $x^2 - 14x + 49$ 6. _____

7. $x^2 - 81$ 7. _____

8. $x^2 + 18x - 40$ 8. _____

9. $6x^2 + 27x + 21$ 9. _____

Solve each equation.

10. $8 + 2f = 34$

10. _____

11. $18 + w/5 = 21$

11. _____

12. $x^2 - 14x + 48 = 0$

12. _____

Write an equation for the following but do not solve.

13. Your basketball team scored a total of 59 points in one game. All of your baskets were worth 2 points each. Your teammates scored a total of 43 points. How many baskets did you make? Let b represent the number of baskets you made.

13. _____

14. A website charges a \$15 convenience fee to order concert tickets online. Each ticket costs \$36. If you spent a total of \$159, how many concert tickets did you buy? Let t = the number of tickets you bought.

14. _____

Solve the following system:

15. $x + 3y = 19$

$x - y = -1$