

Dear Honors Geometry Student,

Welcome to Honors Geometry. Attached is a copy of your summer assignment that will be DUE the first day of class. It is a review of topics learned in previous classes that are crucial to your success in this class. In order to not fall behind in this class, it is important that you FULLY complete this assignment prior to your first math class. There will be an assessment (i.e. quiz) over this material at the beginning of the school year. You may get help from a friend, your parents, a tutor, the internet (possible online resources include Kahn Academy, MathIsFun, Purple Math), etc., but it is important that you show all of your own work to each problem for full credit. All work is to be NEATLY shown, on a separate sheet of paper, all answers circled I will be collecting your work. I look forward to working with you next year!

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Mastery Skills Summer Work

Date _____ Period _____

REMEMBER TO SHOW ALL YOUR WORK ON A SEPERATE SHEET OF PAPER!!**Solve each equation.**

1) $-(1 + 5m) - 5m = -13 - 6m$

2) $-9 - 7m = -3(m - 5)$

Write the slope-intercept form of the equation of the line described.

3) through: $(-5, -3)$, parallel to $y = \frac{6}{5}x - 2$

4) through: $(-1, -1)$, parallel to $y = 4x + 5$

Write the slope-intercept form of the equation of each line.

5) $5x - 8y = -56$

6) $7x + 2y = 16$

Simplify. Your answer should contain only positive exponents.

7) $(2x^2y^4)^4 \cdot xy^3$

8) $(x^3)^3 \cdot 2xy^3$

9) $(a^4)^0 \cdot a^3$

10) $2ab^3 \cdot (2ab)^2$

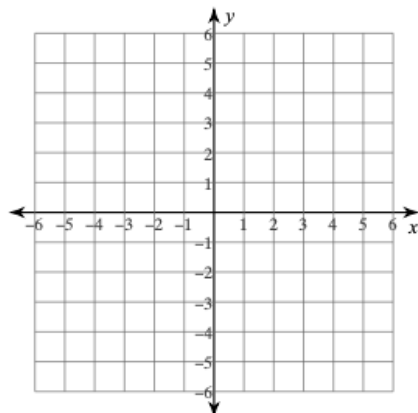
Solve each system algebraically.

11) $-2x - 3y = 2$
 $-x + 5y = -25$

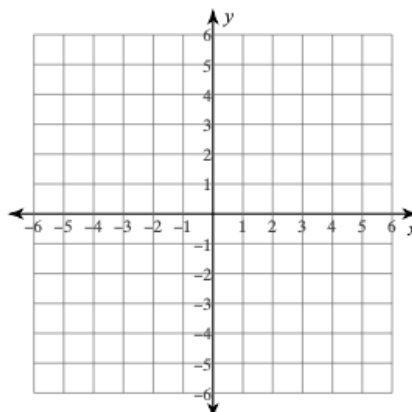
12) $9x + 5y = 21$
 $-3x + 3y = -21$

Sketch the graph of each line.

13) $y = -\frac{3}{2}x - 2$



14) $y = -3$



Simplify.

15) $\sqrt{80}$

16) $-2\sqrt{256}$

17) $-3\sqrt{98}$

18) $3\sqrt{54}$

19) Given the following angles in a triangle, 29° and 52° , find the missing angle.

20) Given the following angles in a triangle, 15° and 23° , find the missing angle.

21) In a right triangle with a leg measures of 2 and 7, find the length of the hypotenuse (Pythagorean Theorem). Round to the nearest tenth.

22) Find the equation for the area of a rectangle given side lengths $(x - 2)$ and $(x - 6)$.

Factor each completely.

23) $x^2 + 3x - 10$

24) $5k^2 - 25k - 30$

Solve each equation by factoring.

25) $n^2 - 1 = 0$

26) $5r^2 + 22r + 8 = 0$