

9th Grade Math Placement Exam

Fayette County Public Schools

Please complete the following before you begin.

First Name _____ Middle Initial _____ Last Name _____

(Please use your real first name. No nicknames.)

High School where you will be attending next year _____

Current Middle School _____

Current Math Teacher _____ Current Math Course _____

Parent/Guardian Name(s) _____

Address _____ Zip Code _____

Phone Number _____ Parent's Email Address _____

Placement Test Rules:

- Print Clearly
- Calculators are permitted (Follow ACT rules)
- NO personal electronic devices
- Show All Work

Good Luck!

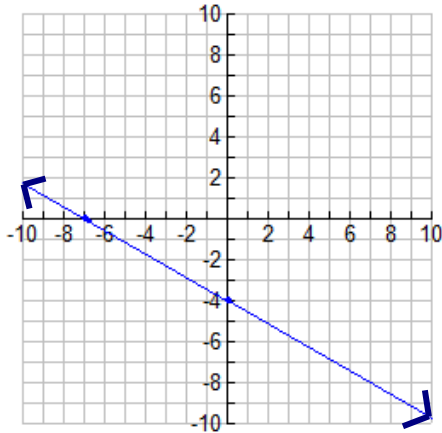
----- DO NOT WRITE BELOW THIS LINE -----

School Use Only: Exam Scores

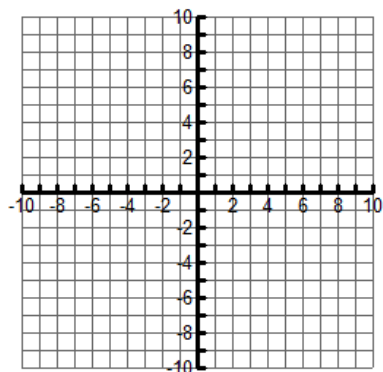
Algebra I: _____ Geometry: _____ Algebra II: _____

Fayette County Algebra I Placement Exam

Directions: Show all work in the appropriate box and circle your final answer. Follow the directions specific for each question.

1. Simplify: $[3 - 5(2 - 7)] \div [4^2 + 2(-2 - 4)]$	2. Solve for x : $2x + 3(2x - 2) = -86$
3. Solve for x : $-8x + 4(x - 1) = 4x - 3(2x - 4)$	4. Solve using an equation. You must show the equation and precisely how you solved it. Five times a number, increased by 3, is the same as three times a number increased by 27.
5. Solve using an equation. You must show the equation and precisely how you solved it. Theo has \$5 more than Denise and Denise has \$11 more than Ruby. Together they have \$45. How much money does each have?	6. Find the equation of the line shown below: 

7. Graph the line on the axes: $-3x - 5y = -20$



8. Find the slope of the line passing through the points $(8, -3)$ and $(-2, -7)$.

9. Find the equation of the line with a slope of $-\frac{4}{5}$ that passes through the point $(-10, -3)$. Write your answer in slope-intercept form.

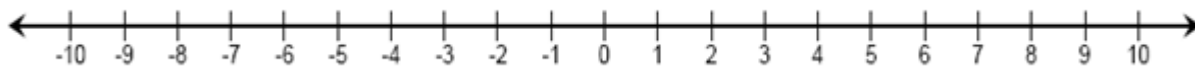
10. Solve the system of equations using any algebraic method. Write your solution as an ordered pair. You must show all your work. Do not use guess and check.

$$\begin{cases} -2x + 9y = -1 \\ -3x + 6y = -9 \end{cases}$$

11. Solve using a system of equations. You must show all your work. Do not use guess and check.

Your school held a bake sale and 75 pies were sold. Pecan pies were \$14.00 and chocolate pies were \$10.50. Your school collected \$903 from the sale of these pies. How many pecan pies AND how many chocolate pies were sold?

12. Solve for x and graph on the number line below: $-22 < -5x - 7 \leq 18$



13. Simplify completely. Write the answer with no negative exponents: $\frac{54x^8y^2z^4}{36x^3y^5z^4}$

14. Simplify: $(4x^2 - 8x - 6) - (7x^2 + 6x - 5)$

15. Multiply: $(2x - 7)(5x + 8)$

16. Factor completely: $49x^2 - 36$

17. Factor completely: $x^2 + 15x - 54$

18. Factor completely: $12x^2 - 13x - 14$

19. Solve for x : $5x^2 - 11x - 12 = 0$

20. Solve for x : $x^2 - 17x = 84$