

Name _____

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Quarterly Exam Review - Chapter 3

Algebra

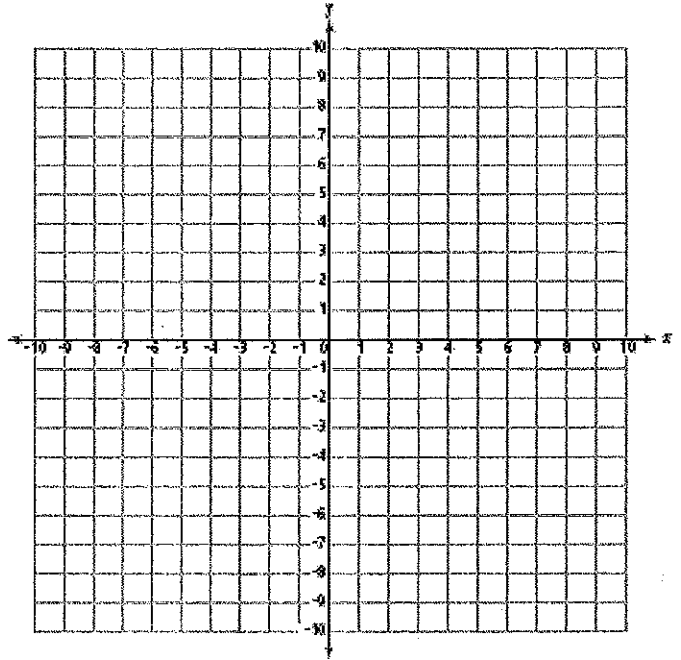
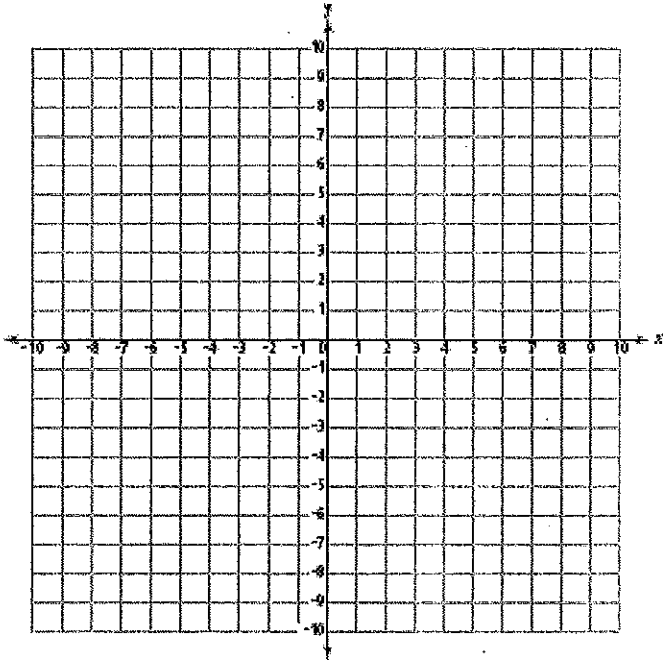
1. Write an equation of a line that passes through the points $(-4,0)$ and $(2,6)$.
2. If the point $(6,-8)$ is on the line of the equation $y = -3x + b$, what is the value of b ?
3. Write the equation of a line parallel to the y -axis that passes through the point $(6,-10)$.
4. Write the equation of a line parallel to the x -axis that passes through the point $(5,7)$.
5. Write an equation of a line passing through the point $(8,-14)$ with a slope of -2 .
6. Solve for y . Write answers in slope-intercept form.
a) $5y + 10x = 25$ b) $3y - 2x = 9$ c) $8y - 24 = -4x$ d) $10y = -6x - 60$
7. At a local bakery, muffins cost \$1.75 each and cookies cost \$4 per pound. If Donna has \$20 to spend at the bakery, write an inequality that represents the number of muffins, x , and pounds of cookies, y , she could buy?
8. Which of the following equations has an average rate of change of 3?
a) $3y + 9x = 12$ b) $3y = 9x + 12$ c) $3y = 9 + 12x$ d) $3y + 9 = 12x$
9. Write the equation of a line with a zero slope passing through the point $(2,6)$.
10. Write the equation of a line with an undefined slope passing through the point $(5,-11)$.

11. Laura sells painted shells and handmade necklaces. Painted shells, p , cost \$6 each and the handmade necklaces, n , cost \$8 each. If Laura must make at least \$300 selling these items, write an inequality that could allow her to figure out how many of each item she must sell in order to reach her goal.

12. Graph each linear equation on the graph provided.

a) $2y = 4x - 10$

b) $-6y = 2x - 12$



13. Graph each linear inequality on the graph provided.

a) $5 - 4y > 2x + 13$

b) $7y + 14 \leq 21x$

