

MATH 097 - Exam 5 Review

1. Is the ordered pair $(2, 1)$ a solution to the equation: $4x - 3y = 6$?
2. Is the ordered pair $(4, 2)$ a solution to the equation: $2x - y = 6$?
3. Complete the ordered pairs for the equation: $3x - 5y = -15$
 $(0, \quad), (\quad, 0), (\quad, -6)$
4. Find the x-intercept and y-intercept for the equation: $-3x + 8y = 48$
5. Find the x-intercept and y-intercept for the equation: $y = 3x + 6$
6. Find the x-intercept and y-intercept for the equation: $x = 5$
7. Graph linear equations like 33-56 on page 215.
8. Find the slope of the line through the points $(-8, 0)$ and $(0, -5)$
9. Find the slope of the line through the points $(1, -1)$ and $(-2, -7)$
10. Find the slope of the line through the points $(6, -5)$ and $(-12, -5)$
11. Find the slope of the line: $-6x + 4y = 4$
12. Find the slope of the line: $x = -2$
13. For the pair of equations, give the slopes of the lines and then determine if the two lines are parallel, perpendicular, or neither.
 $5x - 3y = -2$ $3x - 5y = -8$
14. For the pair of equations, give the slopes of the lines and then determine if the two lines are parallel, perpendicular, or neither.
 $3x - 5y = -1$ $5x + 3y = 2$
15. Graph equations and lines like 17-33 on page 240.
16. Write an equation in slope-intercept form for the line passing through $(2, 7)$ with slope of 3.

17. Write an equation in slope-intercept form for the line passing through $(6, -3)$ with slope of $-\frac{4}{5}$.
18. Write an equation in slope-intercept form for the line passing through $(8, 5)$ and $(9, 6)$.
19. Find the midpoint of the line segment with endpoints $(5, 2)$ and $(-1, 8)$.

Let $f(x) = -3x + 4$ and $g(x) = -x^2 + 4x + 1$. Find the following:

20. $f(-3)$
21. $g(10)$
22. $f(x - 2)$
23. Solve systems by graphing like 15-29 on page 557.
24. Solve the system by the substitution method:
 $4x + 3y = -5$
 $x = y - 3$
25. Solve the system by the elimination method:
 $x + y = 3$
 $-3x + 2y = -19$
26. Solve the system by the elimination method:
 $4x - 3y = -19$
 $3x + 2y = 24$
27. At a recent promotion, tickets to a baseball game were priced at \$7.00 for adults and \$3.00 for children. There were a total of 105 tickets sold for a total of \$495.00. How many adult and children's tickets were sold?