

MAT 150 – Homework 2
Sections F.3 and F.4

NAME _____

Directions: Show all work and write your final answer in the space provided.

1. Find the equation of the line passing through the point $(-5, 6)$ with a slope of -3 . 1. _____
2. Find the equation of the line passing through the point $(-3, 5)$ perpendicular to the line $x - 3y = 12$. 2. _____
3. Find the equation of the circle having a radius of 7 and a center at $(5, -2)$. 3. _____
4. Find the equation of the line passing through the point $(-2, -5)$ parallel to the line $3x - 5y = 20$. 4. _____
5. Find the equation of the line passing through the points $(4, -3)$ and $(-6, -3)$. 5. _____
6. Find the equation of the circle with center $(1, -2)$ containing the point $(5, 3)$. 6. _____
7. Find the equation of the line passing through the points $(5, -4)$ and $(-3, 2)$. 7. _____
8. Find the equation of the line passing through the point $(5, -2)$ parallel to the line $3y + 7 = -8$. 8. _____
9. Find the center and radius of the circle $x^2 + y^2 - 8x + 6y + 21 = 0$. Center: _____
Radius: _____
10. Find the equation of the line passing through the point $(-6, -1)$ perpendicular to the line $5x - 3 = 2$. 10. _____
11. Find the equation of the circle having endpoints of the diameter at the points $(7, -3)$ and $(-1, 5)$. 11. _____
12. Find the equation of the line passing through the points $(4, -3)$ and $(4, 7)$. 12. _____
13. Find the equation of the line passing through the point $(-4, -6)$ perpendicular to the line $2x + 3y = 13$. 13. _____
14. Find the center and radius of the circle $3x^2 + 3y^2 + 12x + 24y + 33 = 0$. Center: _____
Radius: _____
15. Find the equation of the line having an x-intercept of -4 and a y-intercept of 6. 15. _____