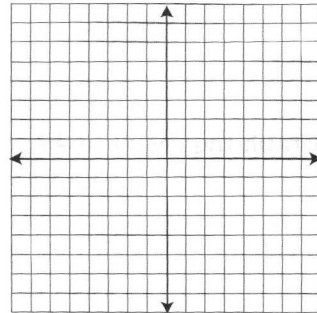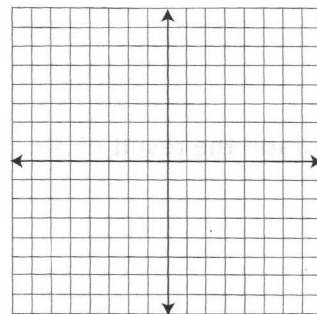Follow the directions.

1. Given $(X + 4)^2 + (Y + 4)^2 = 5$, find the coordinates of the center and the radius of the circle.
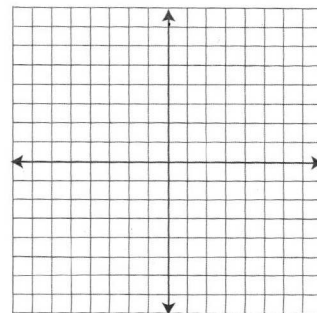
2. Graph the result of #2.

3. Given the center (2, 1) and the radius (4.5), create the equation of the circle.
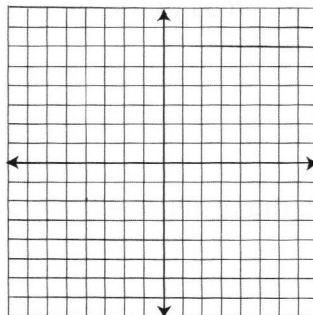
4. Graph the result of #3.

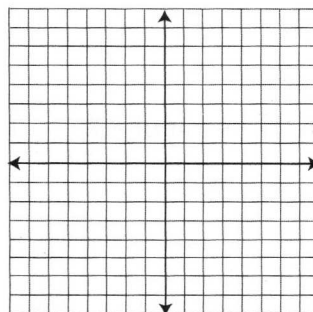5. Given $X^2 - 8X + Y^2 + 12Y = -48$, find the center and the radius by completing the square.

6. Graph the result of #5.

7. Given $4(X - 2)^2 + 16(Y + 1)^2 = 64$, find the coordinates of the center and the X and Y extremities.

8. Graph the result of #7.

9. Given $\dfrac{(X - 1)^2}{9} + \dfrac{(Y + 1)^2}{1} = 1$, find the coordinates of the center and the X and Y extremities.
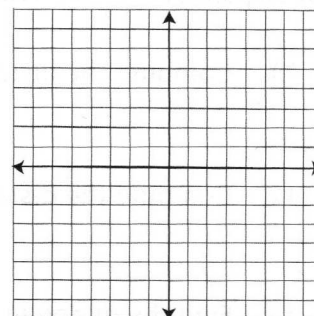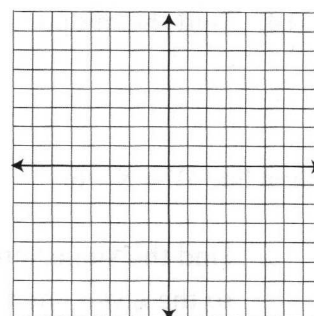
10. Graph the result of #9.

SYSTEMATIC REVIEW

Follow the directions.

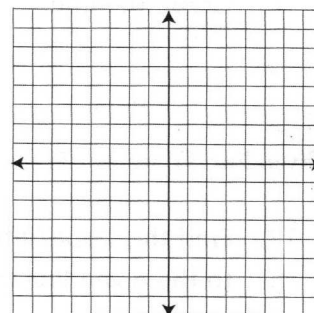1. Given $X^2 + Y^2 = 9$, find the coordinates of the center and the radius of the circle.

2. Graph the result of #1.

3. Given the center $(1, 1)$ and radius (3), create the equation of the circle.
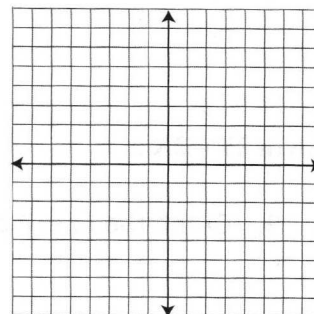
4. Graph the result of #3.

5. Given $X^2 + 6X + Y^2 + 6Y = -2$, find the center and radius by completing the square.

6. Sketch the result of #5.

Given $6X^2 + 4Y^2 = 24$:

7. Find the coordinates of the center.

8. Find the coordinates of the X extremity.

9. Find the coordinates of the Y extremity.
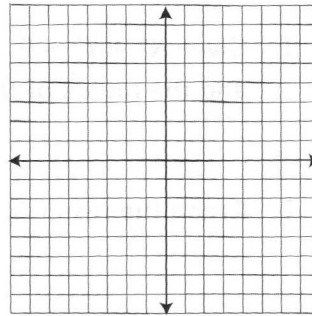
10. Sketch the result.

Given points A (5, –6), B (2, 3), and C (–2, –4):

11. Compute the distance between points B and C.

12. Compute the distance between points A and B.
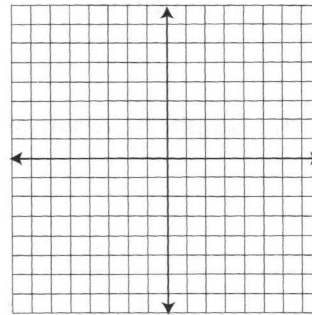
13. Find the midpoint between points B and C.

14. Find the midpoint between points A and C.

Given line $3Y = X - 6$:

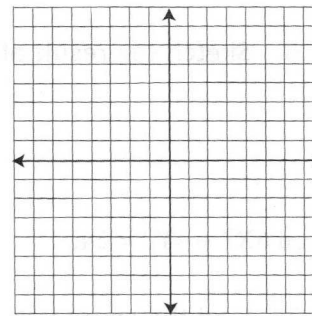15. Find the slope/intercept formula of the line parallel to the given line through the point (-3, 4).

16. Graph the line.

Given line $5Y = -X - 5$:

17. Find the slope/intercept formula of the line perpendicular to the given line through the point (-1, -3).
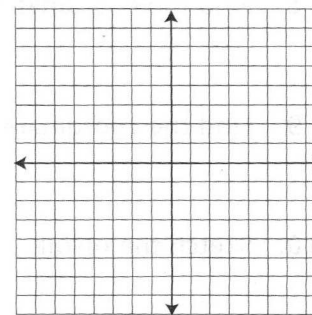
18. Graph the line.

Given $2Y - 2X \geq 3$:

19. Graph the line. Plot two points and test them.

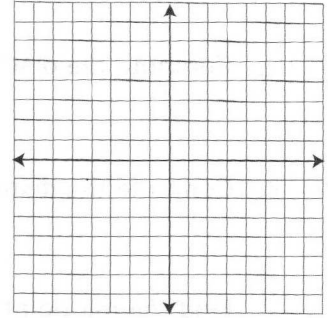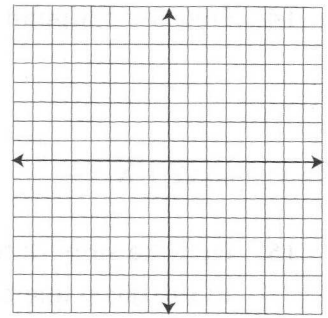20. Shade the graph, and make the line dotted or solid.

Follow the directions.

1. Given $(X - 2)^2 + (Y + 3)^2 = 36$, find the coordinates of the center and the radius of the circle.
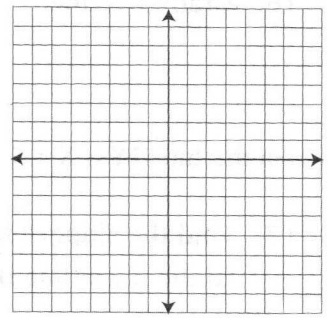
2. Graph the result of #1.

3. Given the center $(-2, 0)$ and radius (5), create the equation of the circle.
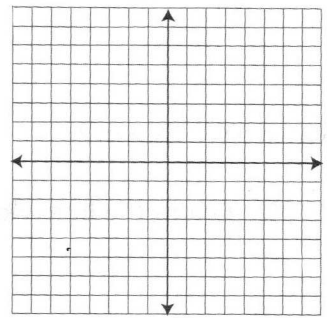
4. Graph the result of #3.

5. Given $X^2 - 6X + Y^2 = 16$, find the center and the radius by completing the square.

6. Sketch the result of #5.

Given $\dfrac{(X+3)^2}{4} + \dfrac{(Y-1)^2}{16} = 1$:

7. Find the coordinates of the center.

8. Find the coordinates of the X extremity.

9. Find the coordinates of the Y extremity.
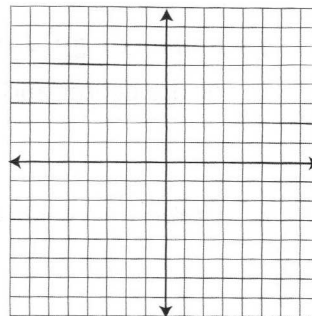
10. Sketch the result.

Given points A (6, 1), B (−2, −1), and C (−4, 4):

11. Compute the distance between points A and B.

12. Compute the distance between points A and C.
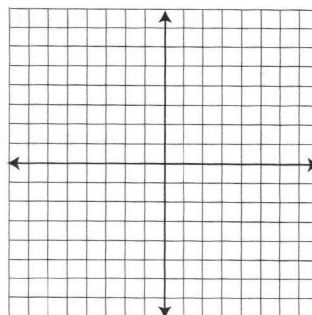
13. Find the midpoint between points B and C.

14. Find the midpoint between points A and C.

Given line 4Y + X = −2:

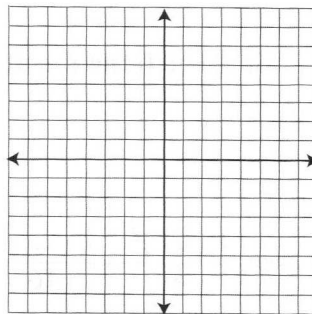15. Find the slope/intercept formula of the line parallel to the given line through the point (0, −4).

16. Graph the line.

Given this line: 2Y = X + 5

17. Find the slope/intercept formula of the line perpendicular to the given line through the point (2, 3).

18. Graph the line.

Given 5Y < 2X + 5/2:

19. Graph the line. Plot two points and test them.

20. Shade the graph and make the line dotted or solid.