

Plot the following points on a single set of coordinate axes, connecting the points within each of the five groups with straight line segments in the order listed. Center the origin one-third up from the bottom of your graph paper to insure that the completed figure can be accommodated.

I

1. (9, 7)
2. (13, 11)
3. (12, 12)
4. (2, 5)
5. (-2, -1)
6. (0, -3)
7. (8, 0)
8. (10, 3)
9. (11, 6.5)

II

10. (5, -6)
11. (4, -5)
12. (1, -6)
13. (-8, -6)
14. (-9, -8)
15. (-9, -6)
16. (-11, -7)

17. (-10, -5)

18. (-11, -4)

19. (-11, -2)

20. (-9, 0)

21. (-5, 2)

22. (5, 11)

23. (9, 24)

24. (14, 20)

25. (8, 11)

26. (8.5, 9.6)

III

12. (1, -6)
27. (0.5, -8)
28. (-2, -8)
27. (0.5, -8)
29. (-1.5, -8.5)
27. (0.5, -8)
30. (-1, -9)

IV

31.  $(6\frac{6}{7}, -\frac{3}{7})$
32. (3, -12)
33.  $(3\frac{2}{3}, -10)$
34. (1.5, -10.5)
33.  $(3\frac{2}{3}, -10)$
35. (2, -11.5)
33.  $(3\frac{2}{3}, -10)$

V

36. (8.5, 4)
37. (11.5, 7)
38. (12, 10)

VI

Now to complete the figure, plot the circle with center at (-8.5, -3.5) and radius one-half, and its interior.

Graph the following set of line segments by plotting the given points and sketching the line through that point with the given slope and applying the stated restrictions. Set up your axes so that  $-20 < x < 10$  and  $-10 < y < 15$ .

1.  $(-1, 13)$  ,  $m = 1$  :  $-1 \leq x \leq 1$
2.  $(-1, 13)$  ,  $m = 3$  :  $10 \leq y \leq 13$
3.  $(6, 13)$  ,  $m = -\frac{2}{5}$  :  $13 \leq y \leq 15$
4.  $(6, 13)$  ,  $m = 1$  :  $5 \leq x \leq 6$
5.  $(2, 11)$  ,  $m = \frac{1}{3}$  :  $2 \leq x \leq 5$
6.  $(2, 11)$  ,  $m = -8$  :  $3 \leq y \leq 11$
7.  $(5, 0)$  ,  $m = -1.5$  :  $3 \leq x \leq 5$
8.  $(5, 0)$  ,  $m = -\frac{2}{3}$  :  $5 \leq x \leq 8$
9.  $(1, -1)$  ,  $m = -\frac{1}{7}$  :  $-2 \leq y \leq -1$
10.  $(1, -1)$  ,  $m = 2$  :  $-3 \leq y \leq -1$
11.  $(-4, -6)$  ,  $m = \frac{3}{4}$  :  $-4 \leq x \leq 0$
12.  $(-4, -6)$  ,  $m = 2.5$  :  $-4 \leq x \leq -2$
13.  $(-7, -2)$  ,  $m = \frac{1}{5}$  :  $-2 \leq y \leq -1$
14.  $(-7, -2)$  ,  $m = 0$  :  $-18 \leq x \leq -7$
15.  $(-20, 2)$  ,  $m = -2$  :  $-2 \leq y \leq 2$
16.  $(-20, 2)$  ,  $m = -\frac{2}{7}$  :  $-20 \leq x \leq -13$
17.  $(-3, 6)$  ,  $m = 4$  :  $-3 \leq x \leq -2$
18.  $(-3, 6)$  ,  $m = \frac{3}{5}$  :  $0 \leq y \leq 6$
19.  $(2, 13.5)$  ,  $m = 0$  :  $1.5 \leq x \leq 3$