## **Solving Systems of Linear Equations**

For problems 1 - 8, graph and shade the region then find the area of the region.

- 1. Find the area of the region below the graph of f(x) = -2x + 6 in the first quadrant.
- 2. Find the area of the region enclosed by the graphs of y = 0, x = 0, x = 6, and  $y = \frac{1}{3}x + 3$ .
- 3. Find the area of the region below the graph of y = -5x + 9 in the first quadrant.
- 4. Let R be the region in the first quadrant under the graph of y = 2x for  $4 \le x \le 9$ . Find the area of R.
- 5. Find the area of the region bounded by the graphs of  $y = \frac{1}{2}x + 6$ ,  $y = \frac{7}{2}x$ , and  $y = \frac{3}{2}x$ .
- 6. Find the area of the region enclosed by the graphs of x = 0,  $y = \frac{1}{2}x + 1$ ,  $y = -\frac{2}{3}x + 8$ .
- 7. Find the area of the region in the first quadrant under the graph of 2x + 4y = 25.
- 8. Find the area of the region enclosed by the graphs of y = 0,  $y = -\frac{2}{3}x + 9$  for  $0 \le x \le 5$ .
- 9. Find the area of the region R bounded by line m, line p, and the x-axis as shown in the graph to the left.

