Practice for 5.5 Applications of determinants.

The following problems will help you practice the material you learned today. Once you are finished check your solutions. Once done, you can work on your WeBWorK homework.

1. This is a good time to demonstrate the many ways we have found in this chapter to solve a set of linear equations. Given this system:

$2x - 4y = 18$

$3x + y = 9$

a. Solve using Gaussian Elimination.

b. Solve by finding the inverse of the matrix of coefficients and using matrix algebra.

c. Solve using Cramer's rule.

d. Solve by graphing

e. Solve by substitution

1. Use determinants to determine whether these three points are the vertices of a triangle. If they are, find the area of the triangle. If they are not, use determinants to write an equation of the line containing the three points.

   A (-2,9) B (2,1) C (4,-3)