Test Review 2.1

Solve for the missing variables:

1)  2) 

Find the determinant and the inverse matrix for each.

3)  4) 

Find the area of a triangle given the vertices:

5) A(-4,-4) B(-1,2) C(2,-6)

Solve the matrix equation.

6)  7) 

Use matrices to solve the system of equations.

8)  9)  10) 

11) A pilot has 200 hours of flight time in single-engine airplanes and twin-engine airplanes. Renting a single-engine airplane costs $60 per hour, and renting a twin-engine airplane costs $240 per hour. The pilot has spent $21,000 on airplane rentals. How many hours did the pilot fly the twin-engine airplane?

12) During the 2003-2004 NBA season, Dirk Nowitzki of the Dallas Mavericks made a total of 976 shots and scored 1680 points. His shots consisted of 3-point field goals, 2-point field goals, and 1-point free throws. He made 135 more 2-point field goals than free throws. How many of each type of shot did Dirk make?