

Find the area of the following:

9. Triangle  $XYZ$  with vertices  $(-6,4)$ ,  $(2,6)$ , and  $(4,-3)$ .

10. triangle  $ABC$  with vertices  $A(2, 5)$ ,  $B(5, 8)$ ,  $C(3, 15)$

11. square  $DEFG$  with vertices  $D(-1, 2)$ ,  $E(-1, -2)$ ,  $F(3, -2)$ ,  $G(3, 2)$

12. rectangle  $HIJK$  with vertices  $H(-1, 1)$ ,  $I(1, -1)$ ,  $J(7, 5)$ ,  $K(5, 7)$

Use a matrix equation to solve each system of equations.

27.  $-x + y = 4$   
 $-x + y = -4$

28.  $-x + y = 3$   
 $-2x + y = 6$

29.  $x + y = 4$   
 $-4x + y = 9$