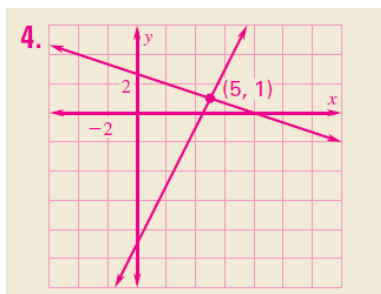


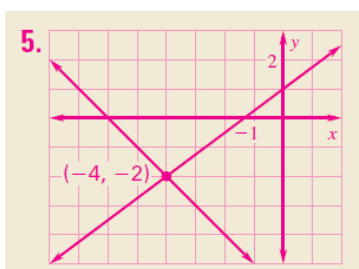
Graph the system and estimate the solution. Check the solution algebraically.

4–6. See margin for art.

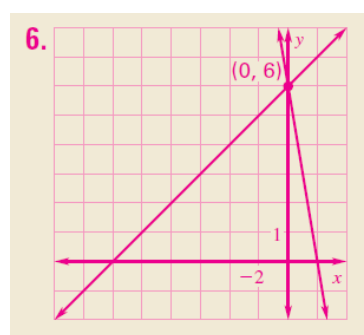
4. $2x - y = 9$
 $x + 3y = 8$ (5, 1)



5. $2x - 3y = -2$
 $x + y = -6$ (-4, -2)



6. $3x + y = 6$
 $-x + 2y = 12$ (0, 6)



Solve the system using the elimination method.

7. $3x + 2y = 5$
 $-2x + 3y = 27$ (-3, 7)

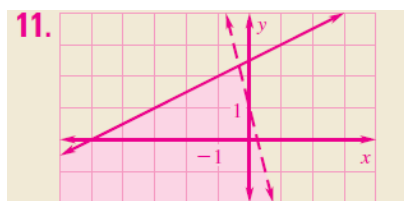
8. $3x + 5y = 5$
 $2x - 3y = 16$ (5, -2)

9. $2x + 3y = 9$
 $-3x + y = 25$ (-6, 7)

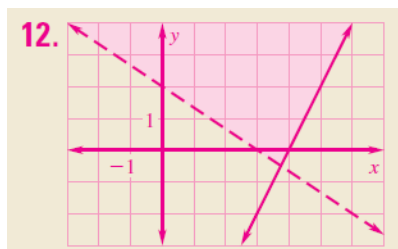
10. **FUEL COSTS** The cost of 14 gallons of regular gasoline and 10 gallons of premium gasoline is \$46.68. Premium costs \$.30 more per gallon than regular. What is the cost per gallon of each type of gasoline? **regular \$1.82, premium \$2.12**

Graph the system of linear inequalities. 11–13. See margin.

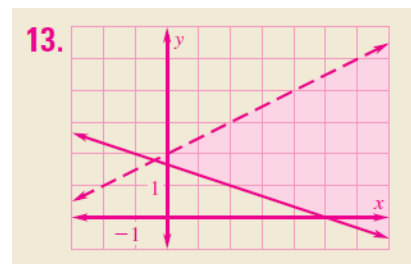
11. $4x + y < 1$
 $-x + 2y \leq 5$



12. $2x + 3y > 6$
 $2x - y \leq 8$



13. $x + 3y \geq 5$
 $-x + 2y < 4$



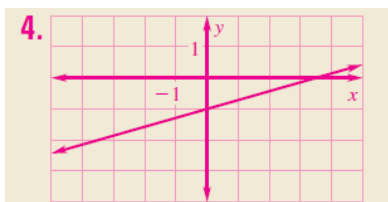
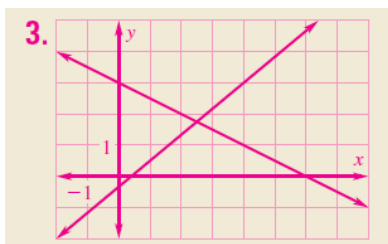
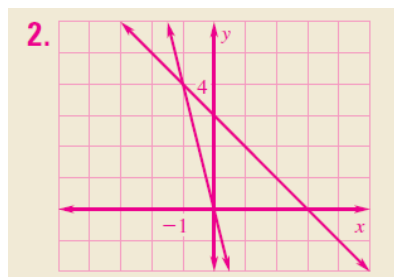
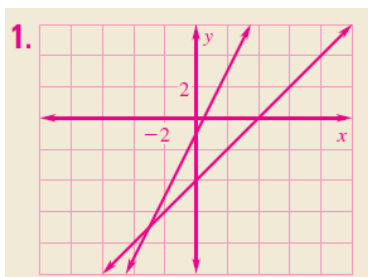
3.1 Graph the linear system and estimate the solution. Then check the solution algebraically. 1–4. See margin for art.

1. $y = 2x - 1$
 $y = x - 4$ (-3, -7)

2. $y = -x + 3$
 $y = -4x$ (-1, 4)

3. $x + 2y = 6$
 $-5x + 6y = -2$
 (2.5, 1.75)

4. $-2x + 7y = -7$
 $4x - 14y = 14$
 infinitely many solutions



3.2 Solve the system using any algebraic method.

5. $-5x - y = -3$

$x - 4y = 9$ **(1, -2)**

6. $4x - 2y = -6$

$-3x + y = -3$ **(6, 15)**

7. $4x + 3y = -5$

$12x + 4y = 10$ **$(\frac{5}{2}, -5)$**

8. $3x + 2y = 4$

$-7x - 5y = -7$ **(6, -7)**

3.3 Graph the system of inequalities. 9–12. See margin.

9. $x > 4$
 $y \geq -1$

10. $x + y < -2$
 $x - 3y > 6$

11. $x \leq 5$
 $y > 3$
 $y > x$

12. $x > -3$
 $x \leq 2$
 $2x + 3y < 10$
 $y > -4x$

