## LESSON PRACTICE

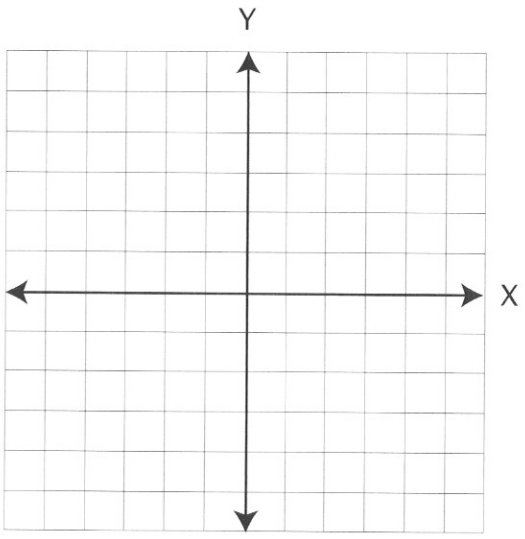
Follow the directions for each set of equations.

**For #1-3** $X + Y = 1$, $Y = X + 3$

1. Draw each line and estimate the solution.

2. Use the substitution method to find Y.

3. Using the solution to #2, substitute to find X.



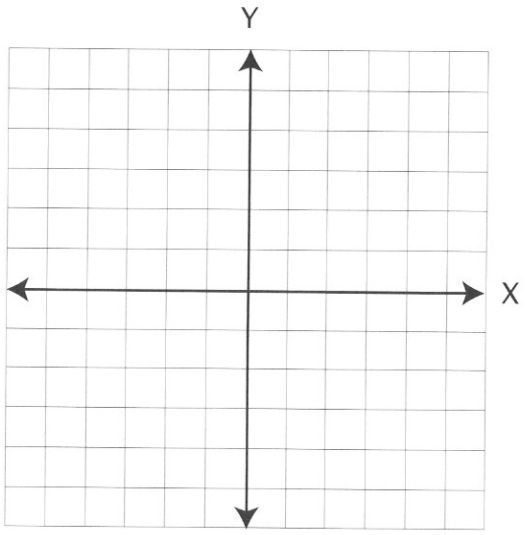

The Y-intercept for one of the next lines in #4 is off the graph. See if you can estimate where it should be. If you can't, use a larger piece of graph paper.

**For #4-6** $2X - Y = 4$, $Y = -X + 11$

4. Draw each line and estimate the solution.

5. Use the substitution method to find Y.

6. Using the solution to #5, substitute to find X.

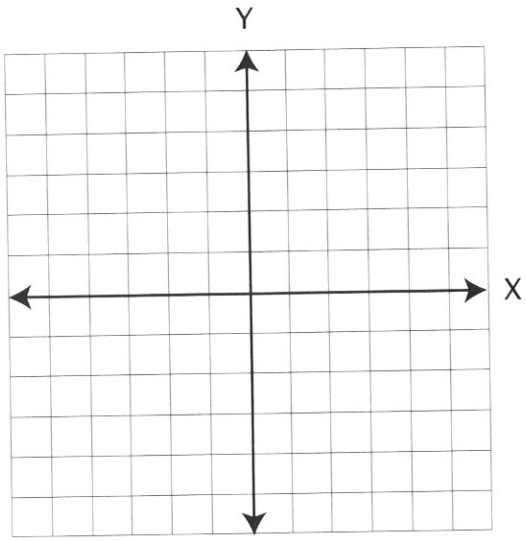


**For #7–9** $2X + Y = -1$, $Y = -3X$

7. Draw each line and estimate the solution.

8. Use the substitution method to find Y.

9. Using the solution to #8, substitute to find X.



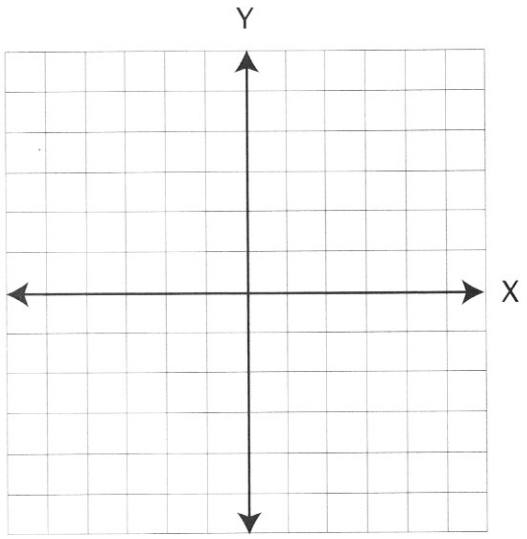

**For #10** $2X + 3Y = 29$, $5X - Y = 30$

10. Use the substitution method to solve the equations. First change the second equation to the slope-intercept form.

SYSTEMATIC REVIEW

**For #1-3** $Y = X + 1$ and $Y = 2X - 2$.

1. Sketch and estimate the solution.




2. Using the substitution method, find X.

3. Using the solution to #2, find Y.

**For #4-6** $Y - X = 4$ and $Y + 2X = 1$.

4. Sketch and estimate the solution.

5. Using the substitution method, find X.

6. Using the solution to #5, find Y.

7. Find the slope through (4, 5) and (1, 3) by computing. $\frac{Y_2 - Y_1}{X_2 - X_1} = m$

8. Find the Y-intercept of the line in #7.

9. Describe the line in #7 using the slope-intercept form, then using the standard equation of a line.

10. Find the slope of a line parallel to $Y = -\frac{4}{3}X - 2\frac{1}{3}$ that passes through (2, 2).

11. Find the Y-intercept of of the line in #10.

12. Describe the line in #10 using the slope-intercept form, then using the standard equation of a line.

13. Fill in the blanks so that each value in the second line is the same as the value directly above it.

____, 4 , 9 , ____, ____, ____, ____, 64 , ____, ____, 121 , ____, ____, ____, 225

$1^2$ , ____, ____, $4^2$ , ____, ____, ____, ____, $9^2$ , $10^2$ , ____, ____, ____, ____, $15^2$

**For #14-16** Use a USA map to find the following information. Assume 25 mpg and 50 mph.*

14. Day One: Travel between Seattle and San Francisco. How far will we go?

15. We leave at 7:35 AM and our ETA (estimated time of arrival) is _____.

16. How much gasoline is consumed?
At $1.269 per gallon, how much does it cost?

17. Write 12/13 as a decimal rounded to the nearest thousandth.

18. Distribute: A(2A - A + 3) =

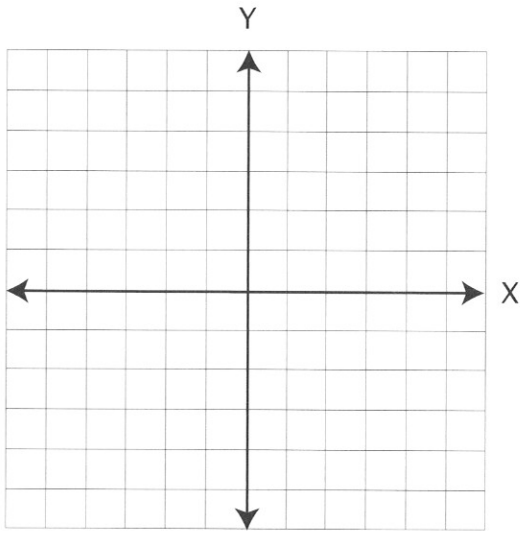
19. Is 97 prime or composite?

20. What is the least common multiple of 6 and 4?

SYSTEMATIC REVIEW

**For #1-3** $Y = 2X + 6$ and $X + Y = -6$.

1. Sketch and estimate the solution.




2. Using the substitution method, find X.

3. Using the solution to #2, find Y.

**For #4-6** $Y + X = -5$ and $Y - 2X = 4$.

4. Sketch and estimate the solution.

5. Using the substitution method, find X.

6. Using the solution to #5, find Y.

7. Find the slope through (0, 0) and (-2, 4) by computing. $\frac{Y_2 - Y_1}{X_2 - X_1} = m$

8. Find the Y-intercept of #7.

9. Describe the line in #7 using the slope-intercept form, then using the standard equation of a line.

10. Find the slope of a line perpendicular to $Y = -\frac{4}{3}X - 2\frac{1}{3}$ that passes through (2, 2).

11. Find the Y-intercept of the line in #10.

12. Describe the line in #10 using the slope-intercept form, then using the standard equation of a line.

13. Fill in the blanks so that each value in the second line is the same as the value directly above it.

1, ____, ____, ____, 25, ____, ____, ____, 81, ____, ____, 144, ____, ____, ____

____, $2^2$, ____, ____, ____, $6^2$, ____, ____, ____, ____, ____, $12^2$, $13^2$, ____, $15^2$

**For #14-16** Use a USA map to find the following information. Assume 25 mpg and 50 mph.

14. Day Two: Travel between San Francisco and Los Angeles. How far will we go?

15. We leave at 6:14 AM and our ETA (estimated time of arrival) is_____ .

16. How much gasoline is consumed? At $1.199 per gallon, how much does it cost?

17. Write 9/28 as a decimal rounded to the nearest thousandth.

18. Use the GCF to simplify 9A + 27B - 81 = 18C.

19. What are the prime factors of 435?

20. $\sqrt{64}$ =