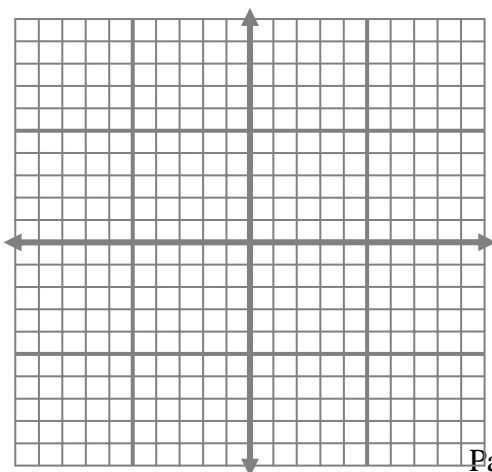


Name _____

CHAPTER 4 TEST FORM F

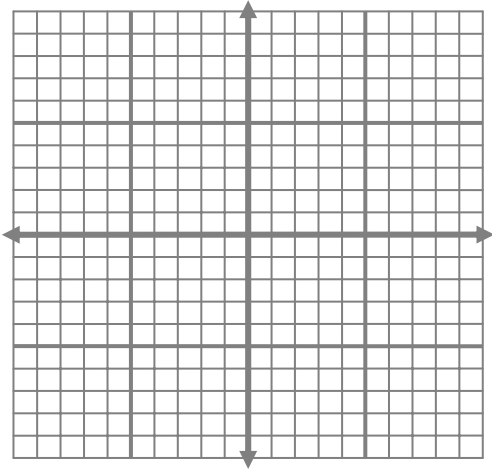
- If the sum of the measures of two angles is 90° , the angles are called _____ angles.
 - right
 - supplementary
 - complementary
 - obtuse
- With the substitution method, the objective is to use an appropriate substitution to obtain one equation in _____ variable(s).
 - zero
 - one
 - two
 - three
- Determine if $\left(4, -\frac{1}{3}\right)$ is a solution of the system $\begin{cases} 4x - 3y = 17 \\ 2x + 6y = -2 \end{cases}$
- Determine if $(-2, 5)$ is a solution of the system $\begin{cases} y = \frac{3}{2}x + 8 \\ 2y - 4x = 18 \end{cases}$
- Solve the following system by graphing. Write the solution as an ordered pair.

$$\begin{cases} x - y = 4 \\ x + y = 2 \end{cases}$$

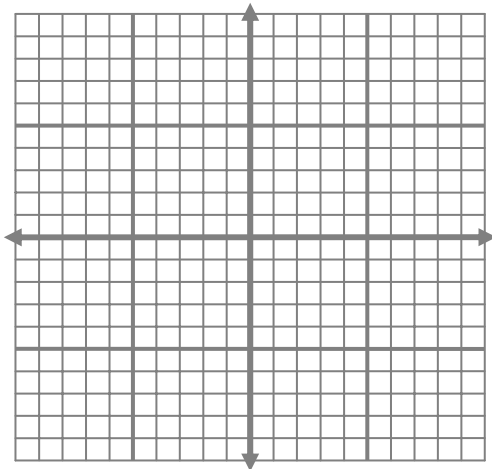


6. Solve the following system by graphing. Write the solution as an ordered pair.

$$\begin{cases} y = -\frac{2}{3}x + 4 \\ x + y = 5 \end{cases}$$



7. Suppose that the equation $2 = 2$ is obtained when a system is solved by the substitution method. Draw a possible graph of the solution.



8. If line 1 has slope 3 and y-intercept 2 and line 2 has slope 3 and y-intercept 5, how many solutions does the system have?
- no solution
 - infinitely many solutions
 - cannot determine from the information given

- d. one solution
9. Determine the number of solutions for the system $\begin{cases} 3x - 4y = 12 \\ y + 3 = \frac{3}{4}x \end{cases}$
- a. one solution
b. no solution
c. none of these
d. infinitely many solutions
10. Which method would be best to solve the system $\begin{cases} 3x + 2y = 4 \\ y = -5x - 6 \end{cases}$?
- a. substitution method
b. elimination (addition) method
c. graphing
d. none of these
11. The substitution method will be used to solve the system $\begin{cases} 5x - 2y = 7 \\ 3x - y = 4 \end{cases}$.
- Solve the second equation for y .
- a. $y = 3x - 4$
b. $y = -3x + 4$
c. $y = 3x + 4$
d. $y = -3x - 4$
12. Solve the system $\begin{cases} x + 2y = 9 \\ 3x + 5y = 23 \end{cases}$ by the substitution method.
13. Elimination will be used to solve the system $\begin{cases} 4x - 3y = 6 \\ -3x - 9y = 2 \end{cases}$.
- Which of the following equations is equivalent to the first equation and can be used with the second equation to eliminate y by addition?
- a. $-12x + 9y = 6$
b. $-12x + 9y = -18$
c. $12x - 9y = 6$

- d. $-12x + 9y = 18$
14. Find the y -coordinate of the ordered pair of the solution of the system $\begin{cases} 5x - 7y = 3 \\ -2x + 7y = 3 \end{cases}$
- a. $y = -1$
b. $y = 2$
c. $y = -2$
d. $y = 1$
15. Solve the following system by the elimination (addition) method.
- $$\begin{cases} 4x + 3y = 7 \\ 5x + 6y = 20 \end{cases}$$
16. Solve the following system by the elimination (addition) method.
- $$\begin{cases} 6x - 5y = 27 \\ 5x + 3y = 1 \end{cases}$$
17. Solve the following system by the elimination (addition) method.
- $$\begin{cases} \frac{x}{2} + \frac{y}{4} = 2 \\ x - \frac{y}{3} = \frac{2}{3} \end{cases}$$
18. Solve the following system by the elimination (addition) method.
- $$\begin{cases} 3x - 2y = 6 \\ \frac{3}{4}x - \frac{y}{2} = 2 \end{cases}$$
- a. $(2, 0)$
b. $(0, -3)$
c. The system is inconsistent.
d. The equations are dependent.

19. Two angles are supplementary. The measure of the larger angle is 15° less than twice the measure of the smaller. If y is the larger angle, choose the system that would solve the problem.

a.
$$\begin{cases} x + y = 180 \\ y = 2x - 15 \end{cases}$$

b.
$$\begin{cases} x + y = 90 \\ y = 2x - 15 \end{cases}$$

c.
$$\begin{cases} x + y = 180 \\ y = 15 - 2x \end{cases}$$

d.
$$\begin{cases} x + y = 90 \\ y = 15 - 2x \end{cases}$$

20. At the concession stand hot dogs sold for \$1.00 and hamburgers sold for \$1.50. At the last football game, 175 hot dogs and hamburgers were sold and \$235 was collected. How many hot dogs were sold? Solve by writing a system of two equations in two variables.

21. A merchant wishes to mix peanuts that sell for \$3.50 per pound and cashews that sell for \$6 per pound to get 100 pounds of mixed nuts that sell for \$4.50 per pound. Let x equal the number of pounds of peanuts and y equal the number of pounds of cashews. If solving this by writing two equations in two variables, which of the following could be one of the equations?

a. $3.50x + 6y = 100$

b. $3.50x + 6y = 4.50$

c. $3.50x + 6y = 450$

d. $x + y = 4.50$

22. The solutions for the system $\begin{cases} x < 0 \\ y > 0 \end{cases}$ are in
- Quadrant I
 - Quadrant II
 - Quadrant III
 - Quadrant IV
23. When graphing $2x - 3y < -5$, is the boundary a solid or dotted line?
24. Which of the following cannot be used as a test point to determine which region to shade for $2x - 7y > -3$?
- $(-2, -1)$
 - $(2, -1)$
 - $(-2, 1)$
 - $(2, 1)$
25. Graph the solution of the system of inequalities $\begin{cases} 2x - y < 3 \\ x + y \leq 4 \end{cases}$

