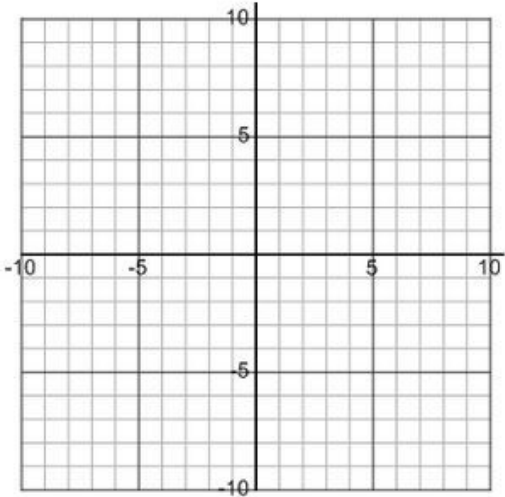
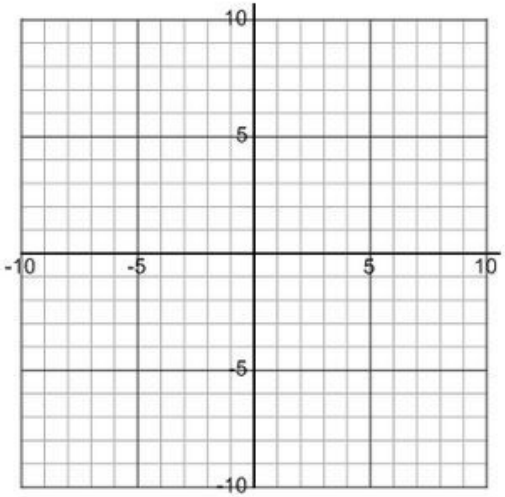
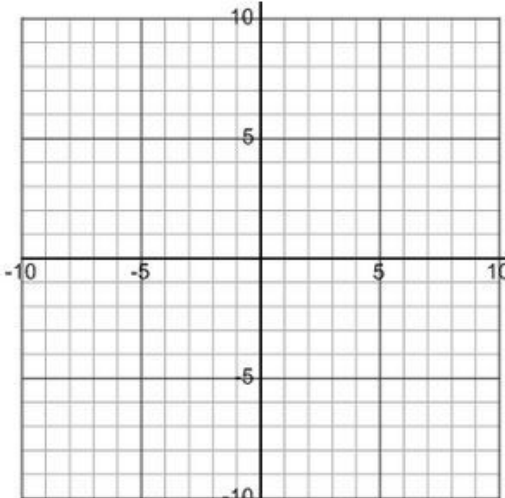


1-2 Solving & Graphing Linear Equations	Name
<p>1. Solve the algebraic equation. $-2x - 3 = 1$</p> <p>2. Graph the system of equations. $y = -2x - 3$ $y = 1$</p> <p>3. How many solutions does this system have? How do you know? Explain.</p>	
<p>4. Solve the algebraic equation. $\frac{1}{2}x + 3 = \frac{1}{2}x - 2$</p> <p>5. Graph the system of equations. $y = \frac{1}{2}x + 3$ $y = \frac{1}{2}x - 2$</p> <p>6. Does your answer in #4 match your graph in #5?</p>	
<p>7. Solve the algebraic equation. $x + 1 = -2(x + 4)$</p> <p>8. Predict where the two lines will intersect. Explain your prediction.</p> <p>9. Graph the system of equations. $y = x + 1$ $y = -2(x + 4)$</p>	

10. Solve the algebraic equation.

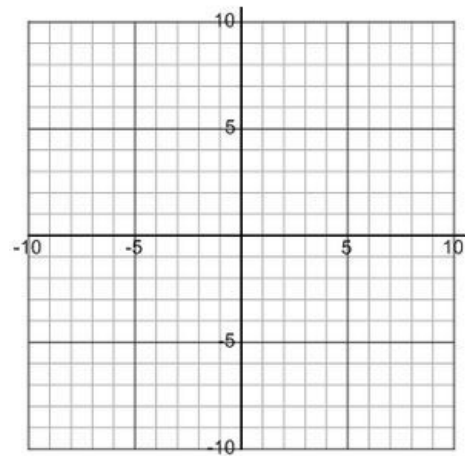
$$-8x + 4 = 4 - 6x - 2x$$

11. Predict where the two lines will intersect. Explain your prediction.

12. Graph the system of equations

$$y = -8x + 4$$

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



13. Solve the algebraic equation.

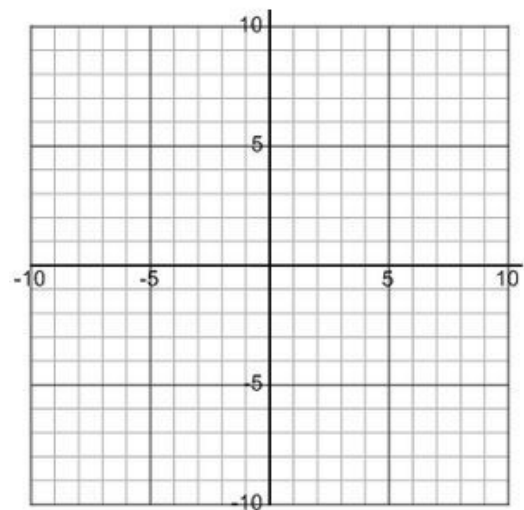
$$3x + 1 = \frac{-1}{3}x - 9$$

14. How many solutions does this system have?

15. Graph the system of equations.

$$y = 3x + 1$$

$$y = \frac{-1}{3}x - 9$$



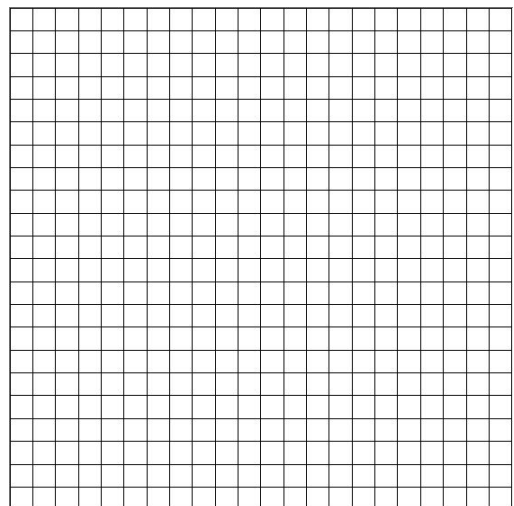
Samantha is a sales associate for a furniture company. Her monthly paycheck is \$1,000 plus 10% of the price of each item she sells.

16. What will be Samantha's monthly paycheck if she sells \$25,000 worth of furniture?

17. If Samantha would like her monthly paycheck to be \$5000, what is the value of the furniture that she needs to sell?

18. If p represents the amount of Samantha's monthly paycheck, and s represents the sum total of all her sales for the month, write an equation which models this situation.

19. Sketch a graph of your equation. Make sure to label the axes appropriately.



<p>20. Solve the equation for the indicated variable:</p> $T = \frac{2U}{E}, \text{ for } U$ <p>a. $U = \frac{T-E}{2}$ b. $U = T + \frac{E}{2}$ c. $U = 2T - E$ d. $U = \frac{TE}{2}$</p>	<p>21. Evaluate the following equation when $x=-2$:</p> $10 \div 2 - 5(x-1)^2 - 4$
<p>22. Write an equation for the total cost of an object if it is 27% off.</p> <p>If the shirt originally costs \$21, what is the cost with the discount?</p>	<p>23. Use the order of operations to evaluate.</p> $12 \div 2 \times 3 + 5 - 2 - 7 $
<p>24. Solve the following equation for x:</p> $wx - y = z$	<p>25. Write in slope-intercept form: $3y - 2x = -12$</p>
<p>26. When you graph a system of linear equations, there are only three different situations that can occur. Describe and give a graphical example for each.</p> <p>a)</p> <p>b)</p> <p>c)</p>	