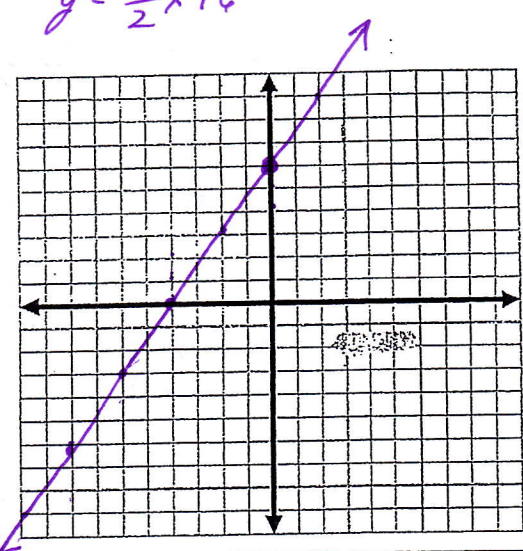


1.	Combining Like Terms	a) $(5x^2 + 2x + 4) + (2x^2 + x - 3)$ $7x^2 + 3x + 1$	b) $(5x^2 + 2x + 4) - (2x^2 + x - 3)$ $3x^2 + x + 7$
2.	Order of Operations & Distributive Property	a) $4 + 2(3 \cdot 2)^2 \div 3 - 8 + 5$ $4 + 2 \cdot 6^2 \div 3 - 8 + 5$ $4 + 2 \cdot 36 \div 3 - 8 + 5$ $4 + 24 - 8 + 5$ $25$	b) $7(x - 3)$ $7x - 21$ c) $(6x + 1)(x - 2)$ $6x^2 - 11x - 2$
3.	Evaluation	a) $2x^2 - 3x + 5$ for $x = 3$  $14$	a) $x^2 - 2x + 1$ for $x = -3$  $16$
4.	Multiply binomials	a) $(x + 3)(x + 2)$ $x^2 + 5x + 6$	b) $(3m + 2)(m + 1)$ $3m^2 + 5m + 2$
5.	Factor	a) $x^2 + 6x + 8$ $(x + 2)(x + 4)$  c) $9x^2 - 49$ $(3x + 7)(3x - 7)$	b) $42x^2 - 7x$ $7x(6x - 1)$  d) $2x^2 - x - 3$ $(2x - 3)(x + 1)$ $\frac{-3}{2} \times \frac{2}{2} = 1$
6. Simplify (Laws of exponents)		7. Simplify Radicals	
a) $(5y^3)^2$	$25y^6$	b) $\frac{10yx^5}{2x^3}$	$5yx^2$
c) $5x^{-2}$	$\frac{5}{x^2}$	d) $5x^2 \cdot 6x^2$	$30x^4$
		a) $\sqrt{8}$	$2\sqrt{2}$
		b) $\sqrt{45}$	$3\sqrt{5}$
		c) $32^{\frac{2}{5}}$	$4$
		d) $\sqrt[6]{643}$	$8$

8.	Solving equations	$-2(x+3) = 56$ <p>a)</p> $\begin{array}{r} -2x - 6 = 56 \\ +6 \quad +6 \\ \hline -2x = 62 \\ \frac{-2x}{-2} = \frac{62}{-2} \\ x = -31 \end{array}$	<p>b) <math>5x - 2 - 2x = x - 6</math></p> $\begin{array}{r} 3x - 2 = x - 6 \\ -x + 2 \quad -x + 2 \\ \hline 2x = -4 \\ x = -2 \end{array}$
		<p>c) <math>(x-2)(x+2) = (x-2)^2</math></p> $\begin{array}{r} x^2 - 4 = x^2 - 4x - 4 \\ \phantom{x^2} - 4 \phantom{=} \phantom{x^2} - 4x - 4 \\ \phantom{x^2} 0 = -4x \\ x = 0 \end{array}$	<p>d) <math>\left(\frac{x}{3} - 10 = 7\right) 3</math></p> $\begin{array}{r} x - 30 = 21 \\ +30 \quad +30 \\ \hline x = 51 \end{array}$
9.	Systems of equations	<p>a) Solve:  <math>y = x - 1</math> and <math>y = -2x + 5</math></p> $\begin{array}{r} x - 1 = -2x + 5 \\ +2x + 1 \quad +2x + 1 \\ \hline 3x = 6 \rightarrow x = 2 \\ y = 2 - 1 = 1 \quad (2, 1) \end{array}$ <p>b)</p> $\begin{array}{r} 2x + 2y = 6 \\ x + 4y = 9 \rightarrow x = -4y + 9 \end{array}$ $\begin{array}{r} 2(-4y + 9) + 2y = 6 \\ -8y + 18 + 2y = 6 \\ -6y = -12 \\ y = 2 \quad 2x + 2(2) = 6 \\ x = 1 \end{array}$	<p>b) Airfares from Sacramento to San Diego cost \$180 for business class and \$120 for coach. A flight had 52 passengers who paid a total of \$7260. How many of each type of passenger flew that day?</p> $\begin{cases} b + c = 52 & b = -c + 52 \\ 180b + 120c = 7260 \end{cases}$ $\begin{array}{r} 180(-c + 52) + 120c = 7260 \\ -180c + 9360 + 120c = 7260 \\ -60c = -2100 \\ c = 35 \\ b = 17 \end{array}$

(b, 2)

$P_1$        $P_2$

<p>10.</p>	<p>Linear Equations</p>	<p>a) Find slope: <math>(2, -4)</math> and <math>(-2, -3)</math></p> $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-3 - (-4)}{-2 - 2} = -\frac{1}{4}$	<p>b) Find y-intercept <math>3x + 5y = 45</math></p> $\begin{array}{r} -3x \quad -3x \\ 5y = -3x + 45 \\ y = -\frac{3}{5}x + 9 \end{array}$ <p>y-int: <math>(0, 9)</math></p>
		<p>c) Find x-intercept</p> $3x + 5y = 45$ $\begin{array}{r} -5y \quad -5y \\ 3x = -5y + 45 \\ x = -\frac{5}{3}y + 15 \end{array}$ <p>x-int: <math>(15, 0)</math></p>	<p>e) Find the equation of the line with a slope of <math>-2</math> through the point <math>(8, -1)</math></p> $\begin{array}{r} -1 = -2(8) + b \\ -1 = -16 + b \\ +16 \quad +16 \\ 15 = b \end{array}$ <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <math>y = -2x + 15</math> </div>
<p>11.</p>	<p>Graphing Linear Equations</p>	<p>e) Find the equation of the line through the two points: <math>(2, 8)</math> and <math>(6, 6)</math></p> $m = \frac{6 - 8}{6 - 2} = -\frac{2}{4} = -\frac{1}{2}$ $8 = -\frac{1}{2}(2) + b$ $8 = -1 + b$ $9 = b$ <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <math>y = -\frac{1}{2}x + 9</math> </div>	<p>f) Graph the following equation: <math>-3x + 2y = 12</math></p> $\begin{array}{r} 2y = 3x + 12 \\ y = \frac{3}{2}x + 6 \end{array}$ 
<p>12.</p>	<p>Use the quadratic formula or complete the square to find roots</p>	<p>a) <math>x^2 + 7x + 5 = 0</math></p> $x = \frac{-7 \pm \sqrt{49 - 20}}{2}$ <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <math>x = \frac{-7 \pm \sqrt{29}}{2}</math> </div>	<p>b) <math>x^2 - 4x - 1 = 0</math></p> $x = \frac{4 \pm \sqrt{16 + 4}}{2}$ $x = \frac{4 \pm 2\sqrt{5}}{2}$ <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <math>x = 2 \pm \sqrt{5}</math> </div>

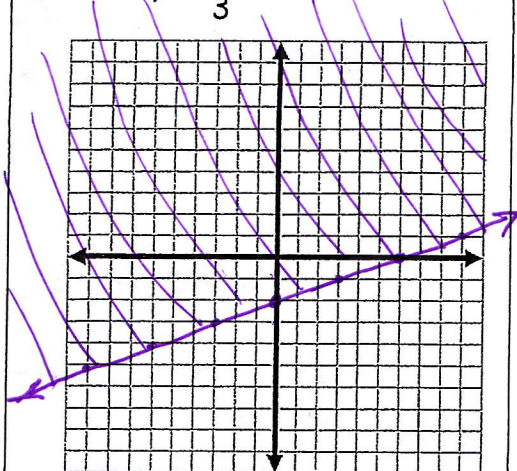


13.

Graph

a)

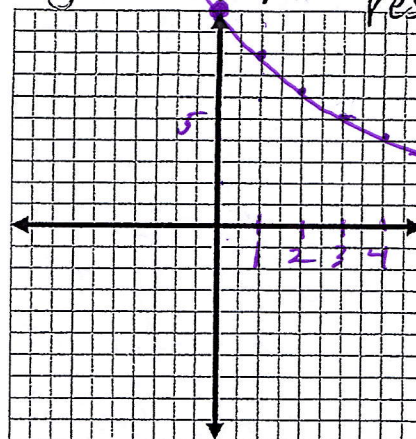
$$y \geq \frac{1}{3}x - 2$$



b)

$$y = 10 \cdot (0.8)^x$$

Comment on  
restrictions  
on domain  
&  
range



14.

Quadratic  
Equations

a) Find the roots (x-intercepts)

$$y = x^2 - 2x - 8$$

$$y = (x-4)(x+2)$$

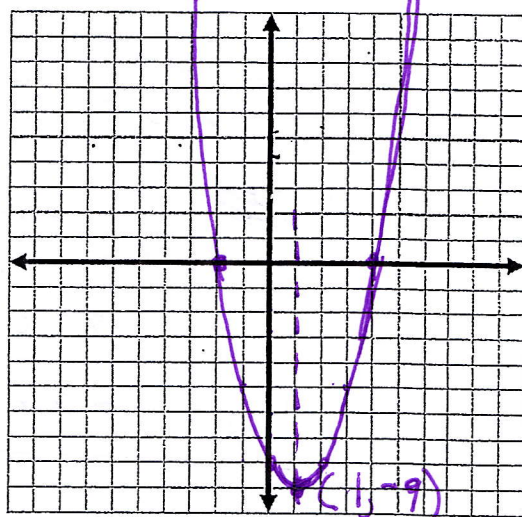
$$x\text{-ints: } (4, 0) \quad (-2, 0)$$

$$LOS: x = 1$$

Identify the vertex,

$$y = 1^2 - 2(1) - 8 = -9$$

Graph



$$y = 3x + 5$$

$$y = x^2 + 6x + 9$$

$$\frac{3x(x+1)}{x(x+1)}$$

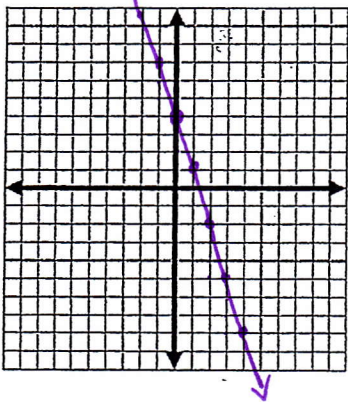
$$7 + 5(10 - 4)^2$$

Using the above, give an example of:

15. A variable:  $x$ 20. A constant term:  $5$ 16. An exponent:  $2$  (as in  $x^2$ )21. An equation:  $y = 3x + 5$  linear17. A coefficient:  $3$  ( $3x$ )22. A quadratic:  $y = x^2 + 6x + 9$ 18. A term:  $3x$ 23. An expression:  $7 + 5(10 - 4)^2$ 19. A factor:  $(x+1)$ 

24. Which of the above, when graphed would be a parabola?

$$y = x^2 + 6x + 9$$

<p>Sequences</p> <p>24.</p>	<p>Generate the first four terms of sequence for the equation given:</p> $-2(4^n) = t(n)$ <p><u>-2</u>, <u>-8</u>, <u>-32</u>, <u>-128</u></p> $t(n) = -3 - 2n$ <p><u>-3</u>, <u>-5</u>, <u>-7</u>, <u>-9</u></p>	<p>Write the equation for each sequence</p> <p><u>16</u>, <u>6.4</u>, <u>2.56</u>, <u>1.024</u></p> <p>Could be arithmetic</p> <p>7, <u>0</u>, -7, -14</p> <p>OR could be geometric</p> <p><u>-3.5</u>, <u>-7</u>, <u>-14</u></p>
<p>Is it a solution?</p> <p>25</p>	<p>Is (5,7) a solution to the system <math>2x + y = 17</math>  <math>x - y = -1</math>? Why or why not?</p> <p>NO</p> <p><math>\hookrightarrow x = y - 1</math></p>	<p><math>2(y-1) + y = 17 \rightarrow 3y = 19</math>  <math>y = \frac{19}{3}</math></p>
	<p>* Answers will vary. I started <del>to</del> to solve system and found <math>y = \frac{19}{3}</math> so (5, 7) is not the solution.</p>	
<p>Name a point that is a solution to:</p> <p>26</p>	<p>a) <math>y = -3x + 4</math></p>  <p><math>(\frac{4}{3}, 0)</math></p>	<p>b) <math>x^2 - 5x = -6</math></p> <p><del><math>x^2 - 5x + 6 = 0</math></del></p> <p><math>(x-3)(x-2) = 0</math></p> <p>solutions are <math>x=3</math> or <math>x=2</math></p>
<p>Solving Complicated</p> <p>27.</p>	<p>a) <math>4^{(x-2)} = 2^5</math></p> <p><math>2x-4 = 5</math></p> <p><math>2x = 9</math></p> <p><math>x = 4.5</math></p>	<p>b) <math>(\frac{x^2}{2} - 3x + \frac{5}{2} = 0) \cdot 2</math></p> <p><math>x^2 - 6x + 5 = 0</math></p> <p><math>(x-5)(x-1) = 0</math></p> <p><math>x = 5</math> or <math>x = 1</math></p>
	<p>c) <math>3\sqrt{x-2} = 108</math></p> <p><math>\sqrt{x-2} = 36</math> — Divide both sides by 3</p> <p><math>x-2 = 1296</math> — Square both sides</p> <p><math>x = 1298</math></p>	<p>d) <math> 2x-1  = 5</math> Solve for + and - absolute value</p> <p><math>2x-1 = 5</math> OR <math>2x-1 = -5</math></p> <p><math>2x = 6</math> OR <math>2x = -4</math></p> <p><math>x = \frac{3}{2}</math> OR <math>x = -\frac{1}{2}</math></p>

100

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author details the process of reconciling bank statements with the company's internal records. This involves comparing the ending balance of the bank statement with the ending balance of the company's ledger. Any discrepancies are investigated and resolved to ensure the accuracy of the financial statements.

The third part of the document covers the preparation of the monthly financial statements. This includes the income statement, balance sheet, and cash flow statement. Each statement provides a different perspective on the company's financial performance and position.

Finally, the document concludes with a summary of the key findings and recommendations. It suggests that regular audits and reviews can help identify potential areas of improvement and ensure that the company's financial practices are in compliance with all relevant regulations.

The following table provides a detailed breakdown of the company's revenue and expenses for the month of January. The revenue is categorized by product line, and the expenses are categorized by department. This analysis shows that the sales department is the primary driver of revenue, while the marketing department is the largest expense center.

Category	Item	Amount
Revenue	Sales - Product A	\$12,500
	Sales - Product B	\$8,750
	Sales - Product C	\$5,000
	Other Revenue	\$1,250
Expenses	Marketing	\$3,750
	Operations	\$2,500
	Administrative	\$1,250
	Research & Development	\$1,250
	Legal & Compliance	\$750
	Other	\$750

Based on the data presented in the table, it is clear that the company's revenue is primarily derived from the sale of Product A. However, the marketing department's expenses are significantly higher than those of other departments, which may indicate a need for more efficient marketing strategies.

The balance sheet shows that the company's assets are primarily composed of cash and accounts receivable. The liability side of the balance sheet is dominated by accounts payable, which suggests that the company may need to improve its payment terms with its suppliers.

The cash flow statement indicates that the company's operating activities generated a positive cash flow for the month. This is a good sign, as it shows that the company's core operations are profitable and generating cash.

In conclusion, the company's financial performance for the month of January was generally strong. However, there are several areas where the company can improve, including reducing marketing expenses and improving its payment terms with suppliers.