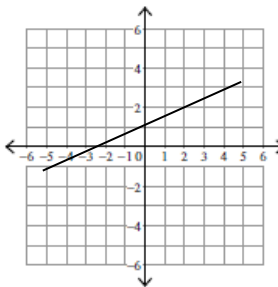
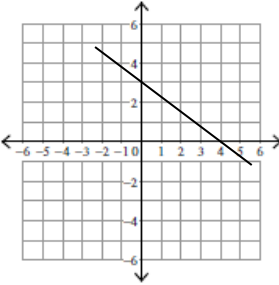
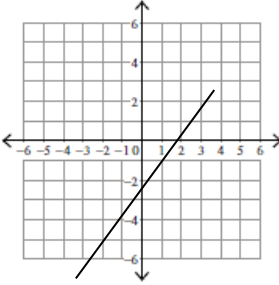
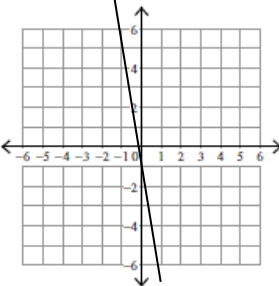
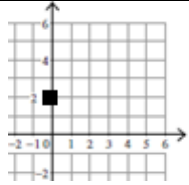
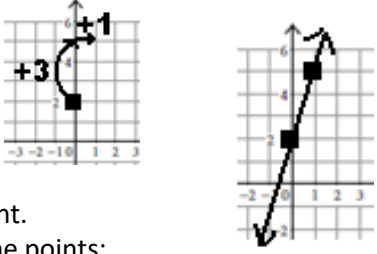


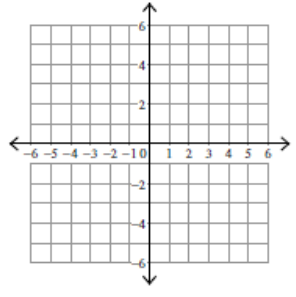
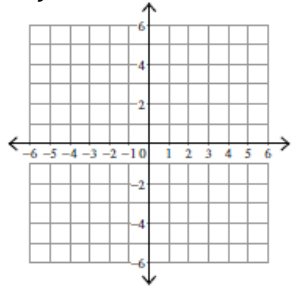
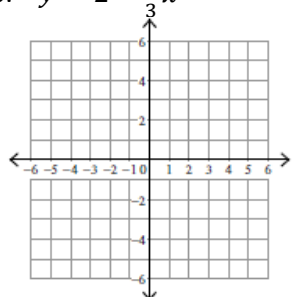
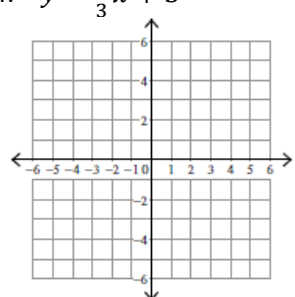
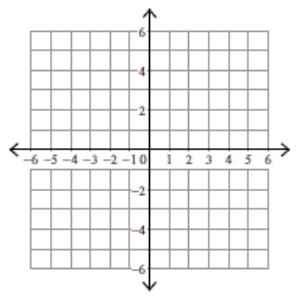
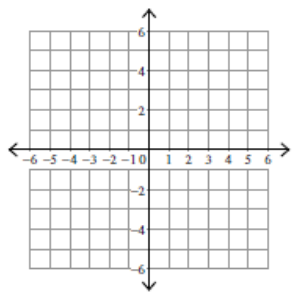
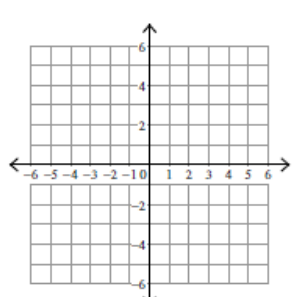
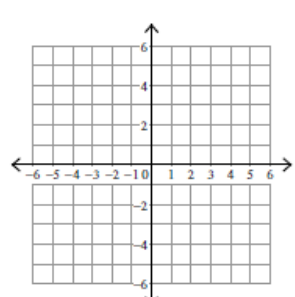
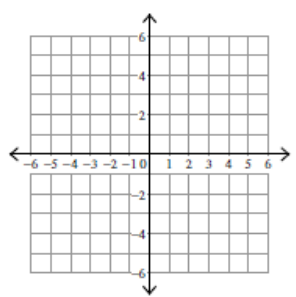
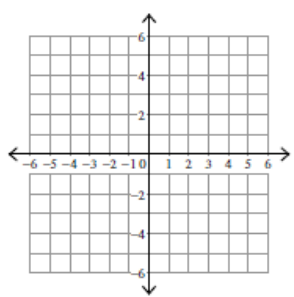
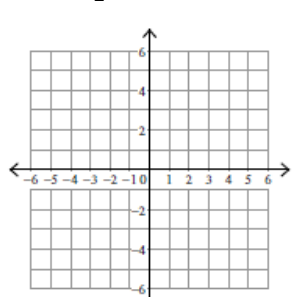
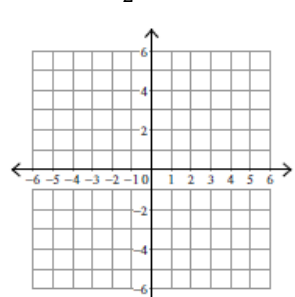
Simplify all expressions as much as possible. Absolutely no calculators. Please show all work in the space provided.

<u>Notes/Hints:</u>	<u>Examples</u>
<ul style="list-style-type: none"> • Given Points: (x_1, y_1) (x_2, y_2) use the equation for $\text{Slope} = \frac{y_1 - y_2}{x_1 - x_2}$ <ul style="list-style-type: none"> ○ Remember to subtract on top and bottom first, and then reduce the fraction. ○ Answers can be negative! • Given a line: find two points that the line runs through (corners of the grid) then use $\frac{\text{rise}}{\text{run}}$ <ul style="list-style-type: none"> ○ If the line goes up the slope is positive ○ If the line goes down the slope is negative 	<p>Find the slope between the two points, (3, 2) and (5, 7)</p> <p style="text-align: center;">$3 = x_1 \quad 2 = y_1 \quad \text{and} \quad 5 = x_2 \quad 7 = y_2$</p> <p style="text-align: center;">$\text{Slope} = \frac{2-7}{3-5} = \frac{-5}{-2} = \frac{5}{2}$</p> <hr style="border: 1px solid black;"/> <p>Find the slope of the line.</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>This line runs through the points (0, 1) and (-2, 0).</p> <p>It rises 1, and runs 2. This line goes up so the slope is positive.</p> <p>Therefore the slope is $\frac{1}{2}$</p> </div> </div>

1. Find the slope between the points (1,4) and (2, 3)	2. Find the slope between the points (7,4) and (9, 3)	3. Find the slope of the line 	4. Find the slope: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr><th>x</th><th>y</th></tr> </thead> <tbody> <tr><td>1</td><td>4</td></tr> <tr><td>2</td><td>7</td></tr> <tr><td>3</td><td>10</td></tr> <tr><td>4</td><td>13</td></tr> </tbody> </table>	x	y	1	4	2	7	3	10	4	13
x	y												
1	4												
2	7												
3	10												
4	13												
5. Find the slope between the points (1,7) and (-8, 5)	6. Find the slope between the points (8,9) and (-6, 3)	7. Find the slope of the line 	8. Find the slope: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr><th>x</th><th>y</th></tr> </thead> <tbody> <tr><td>2</td><td>12</td></tr> <tr><td>4</td><td>9</td></tr> <tr><td>6</td><td>6</td></tr> <tr><td>8</td><td>3</td></tr> </tbody> </table>	x	y	2	12	4	9	6	6	8	3
x	y												
2	12												
4	9												
6	6												
8	3												
9. Find the slope between the points (0,-2) and (2, -4)	10. Find the slope between the points (-1,4) and (2, -9)	11. Find the slope of the line 	12. Find the slope: <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr><th>x</th><th>y</th></tr> </thead> <tbody> <tr><td>7</td><td>12</td></tr> <tr><td>10</td><td>14</td></tr> <tr><td>13</td><td>16</td></tr> <tr><td>16</td><td>18</td></tr> </tbody> </table>	x	y	7	12	10	14	13	16	16	18
x	y												
7	12												
10	14												
13	16												
16	18												

Simplify all expressions as much as possible. Absolutely no calculators. Please show all work in the space provided.

<u>Notes/Hints:</u>	<u>Examples:</u>
<ol style="list-style-type: none"> 1) First identify the starting value (y-intercept) -It is the number NOT being multiplied by x 2) Plot that number on the y-axis 3) Then identify the slope -It is the number being multiplied by x 4) If it is not a fraction, divide by 1 to make it a fraction 5) Label the numerator "rise" and the denominator "run" 6) From the y-intercept count up or down the "rise" value and count to the left or right your "run" value. That will be your next point. 7) Repeat for several points and draw a LINE through those points. (Make sure to extend past the points. Don't stop!) 	<p>Graph: $y = 2 + 3x$</p> <ol style="list-style-type: none"> 1) y-intercept is 2 2) Plot a point on y-axis at 2 3) slope is 3 4) $\frac{3}{1}$ 5) $\frac{3 \text{ rise}}{1 \text{ run}}$ 6) From start, count up 3 and to the right 1. This will be your next point. 7) Draw a line through the points: <div style="display: flex; justify-content: space-around; align-items: center;">   </div>

<p>1. $y = -3 + 2x$</p> 	<p>2. $y = 4x + 1$</p> 	<p>3. $y = 2 - \frac{1}{3}x$</p> 	<p>4. $y = \frac{2}{3}x + 3$</p> 
<p>5. $y = 5x - 2$</p> 	<p>6. $y = 3 + 2x$</p> 	<p>7. $y = 1 + \frac{2}{5}x$</p> 	<p>8. $y = -1 - \frac{3}{2}x$</p> 
<p>9. $y = 5 - 2x$</p> 	<p>10. $y = -2x - 3$</p> 	<p>11. $y = \frac{3}{2} + 2x$</p> 	<p>12. $y = -\frac{5}{2} - 3x$</p> 

Multi-step Equations- A

Simplify all expressions as much as possible. Absolutely no calculators. Please show all work in the space provided.

<u>Notes/Hints:</u>	<u>Examples:</u>	
1 st – Distribute (get rid of any parentheses)	Problem looks like	$2(3x - 8) - 5 + 7x = 8 - (2 - x) + 8x$
2 nd – Combine Like Terms	1 st – Distribute (get rid of parenthesis)	$6x - 16 - 5 + 7x = 8 - 2 + x + 8x$
3 rd – Move all Variables to the same side (remember what you do to one side you must do to the other)	2 nd – Combine like terms	$13x - 21 = 9x + 6$
4 th – Move all non-variables to the other side (by adding or subtracting)	3 rd – Move all variables to same side (remember to “do” on both sides)	$-9x \quad -9x$ $4x - 21 = 6$
5 th – Isolate the variable (by dividing or multiplying the coefficient)	4 th – Move all the non-variables to the same side (by adding or subtracting)	$\quad + 21 \quad + 21$ $4x \quad = 27$
	5 th – Isolate the variable (by dividing or multiplying the coefficient)	$\div 4 \quad \div 4$ So $x = 27/4$ or $6\frac{3}{4}$

1. $6x + 8 = 14$	2. $-7 + 6x + 6x = 137$	3. $5x + 2 = x + 26$	4. $3(4x + 7) = 45$
5. $6x + 9 = 27$	6. $3x - 1 + 7x = -41$	7. $7x + 6 = -4x + 83$	8. $4(3x - 9) = -96$
9. $-4x - 6 = 42$	10. $6x - 9 - x = 36$	11. $-6x + 5 = 37 + 2x$	12. $7(6x + 4) = 28$

Absolutely no calculators. Please show all work in the space provided.

Please box your final answer.

Property	Example
1. $u^m u^n = u^{m+n}$	$5^3 \cdot 5^4 = 5^{3+4} = 5^7$
2. $\frac{u^m}{u^n} = u^{m-n}$	$\frac{x^9}{x^4} = x^{9-4} = x^5$
3. $u^0 = 1$	$8^0 = 1$
4. $u^{-n} = \frac{1}{u^n}$	$y^{-3} = \frac{1}{y^3}$
5. $(uv)^m = u^m v^m$	$(2z)^5 = 2^5 z^5 = 32z^5$
6. $(u^m)^n = u^{mn}$	$(x^2)^3 = x^{2 \cdot 3} = x^6$
7. $\left(\frac{u}{v}\right)^m = \frac{u^m}{v^m}$	$\left(\frac{a}{b}\right)^7 = \frac{a^7}{b^7}$

1. $x^2 x^8$	2. $x^2 y^{-9}$
3. $\frac{y^7}{y^5}$	4. $\frac{y^2}{y^5}$
5. 4^0	6. 4^{-3}
7. $(x^2 y^6)^3$	8. $(3b^2)^4$
9. $(4x^2 y^2)(2x^3 y^{-2})$	10. $\left(\frac{x}{y}\right)^{-3}$

