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Challenging All Students, Even the Gifted Ones, Without Going Crazy!

Presented by

Carrie Hair, Washoe County School District, Reno, NV
Jenny Salls, Washoe County School District, Reno, NV

Agenda

- Introductions
- The need for differentiation
- Differentiation Activities
 - Learning Choice Matrix
 - Honeycomb
- Other Activities
- Closing

Why Differentiate?

“Get real. It’s impossible to look at any classroom and pretend that all students are alike”

- Allow each student the opportunity to shine
- Offer choice and flexibility
- Become more comfortable with multiple instructional strategies and a variety of representations.
- Use a variety of forms of assessments

<http://www.nctm.org/resources/content.aspx?id=22624>

Learning Choice Matrix

- What does it look like?
- Example: Properties of Quadrilaterals.
- How else could this be used in your classroom?

Properties of Quadrilaterals
Matrix

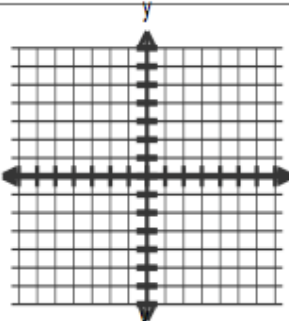
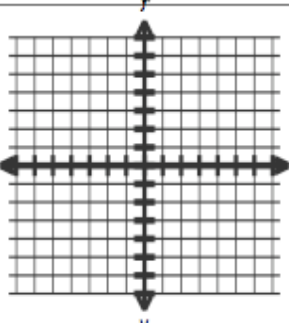
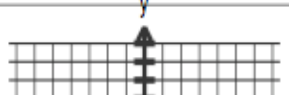
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Date _____ Per _____

*Directions: For each statement in column I, diagram and label the quadrilateral(s) in column II and determine whether the statement is true or false. If the statement is **true**, complete either column III, VI, or V AND column VI. If the statement is **false**, complete column VII. You must fill in columns III-VI at least once.*

Column I Statements	Column II Diagram and label	Column III Justify using sides	Column IV Justify using angles	Column V Justify using diagonals	Column VI Explain your reasoning from col. III, IV, or V	Column VII Re-write the statement so that it is true
<i>A trapezoid is a triangle.</i>	True or False					
<i>Parallelograms are quadrilaterals.</i>	True or False					

Objective: I can graph an equation using an x-y table, the x- and y-intercepts, or slope-intercept form

Instructions: You must do 1 cell in each row plus the graph. You must use each of the first 3 columns at least once. Be strategic about which graphing technique you use for each problem.

The tasks The problems	Make a table to graph	Find the x- and y-intercepts to graph	Use slope-intercept form to graph	The graphs														
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Primes, Composites, Factors, Multiples, LCM, GCF

Name _____

Date _____ Period: _____

Objective: I can identify prime and composite numbers, find factors and multiples of a number, find the prime factorization of a number, and find the LCM and GCF of two numbers.

Instructions: You must complete 6 rows.

The tasks The problems	Identify whether you're finding primes, composites, factors, multiples, LCM or GCF and why	Describe your strategy for solving the problem	Solve the problem	Solve the problem a different way
Find the prime factorization for each of the following numbers: 84, 180, 1440				
A mystery number has 8 as a factor and 12 as a factor. a. Find the smallest positive number that fits these conditions b. Find 4 others numbers that would fit the conditions.				
In the school kitchen during lunch, the timer for pizza buzzes every 14 minutes; the time for hamburger buzzes every 6 minutes. The two timers just buzzed together. In how many minutes will they buzz together again?				

Honeycomb

- What does it look like?
- Example: Angles in a Polygon
- How else could this be used in your classroom?

There are six types of questions, as identified by McTighe and Wiggins:

Interpretation Question

Requires interpreting concepts to prove understanding

Explanation Question

Requires accurate explanation of theories and knowledge

Application Question

Requires using knowledge in a new situation or diverse context

Honeycomb Organizer

Empathy Question

Requires identifying with another person's feelings and worldview

Perspective Question

Requires shifting critical points of view

Requires using wisdom of one's own ignorance and/or pattern of thought to prove understanding

Self-Knowledge Question

Explanation Question

Find the "summarizing angles" handout and follow the instructions on the handout.

- * Basic angle relationships
- ** Angles on parallel lines
- *** Angles of a polygon

Application Question

Complete the "more equation practice" handout for either:

- * Basic angle relationships
- ** Angles on parallel lines
- *** Angles of a polygon

All About Angles

Interpretation Question

Graffiti Cards or Riddles!

Pick 6 words from the Explanation Question. Make 6 graffiti cards or riddles using the vocabulary words you chose. See the criteria and exemplars for riddles and graffiti cards.

Perspective Question

Pick two words from the Explanation Question. Write a poem for two opposing voices. Find the "Poems for Two Opposing Voices" handout and follow the directions.

Empathy Question

Make a travelogue sketching and describing where you see each of these words in school, at home, or from famous landmarks.

Self-Knowledge Question

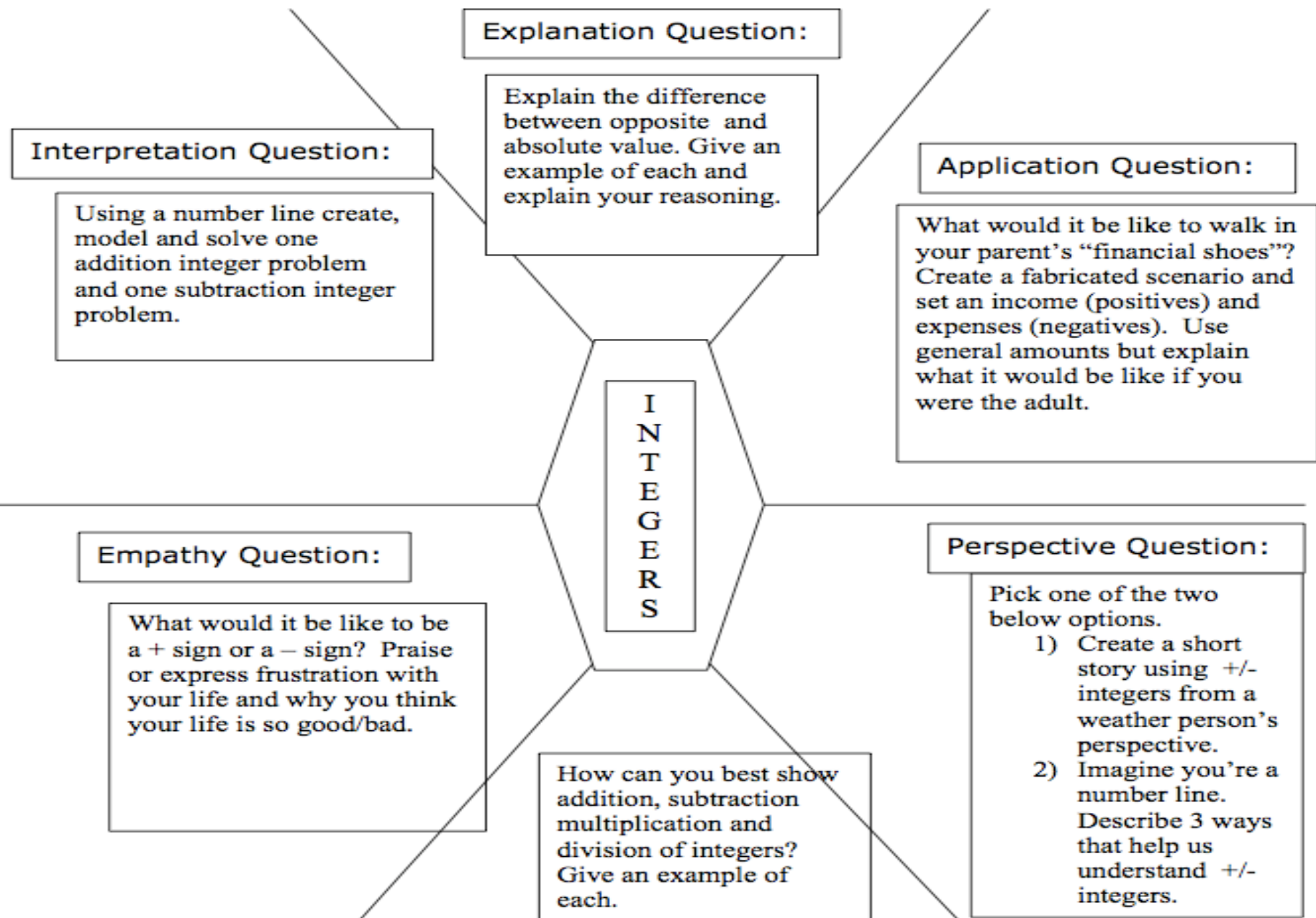
Pick the 6 words you are most uncomfortable with. Write a question that could appear on a test that involves this word. Write a solution and an explanation of your solution.

Select one of the word lists for either:

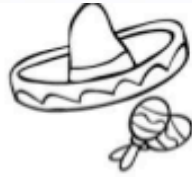
- * Basic angle relationships
- ** Angles on parallel lines
- *** Angles of a polygon

You may not use the same *'d list you have used for another question.

Honeycomb on Integers.



Other Activities: Menus



Senorita Pelo's Mexican Restaurant

Do all work neatly on separate pieces of graph paper. Be sure you answer all questions and show all work.



Appetizer Choose one: (Practicing)

Chips and Salsa: Pink paper

Guacamole: Green paper

Quesadilla: goldenrod paper

Entree Choose one: (Processing) –

Super Burrito: Find the bingo

Chili and Cheese Con Carne: Concentration

Fish Tacos: Board Game



Side Dish Choose one: (Practicing) –

Black beans: yellow paper

Refried beans: blue paper

Spanish rice: pink paper

Dessert Choose one: (Processing/practicing)

Flan: Play another group's "Find the Bingo"

Fried ice cream: Play another group's "Concentration"

Sopapillas: Play another group's "Board Game"



Other Activities: Tic-Tac-Toe

Linear Equations -
Geometry Applications

Name _____
Date _____ Per _____

Complete one Tic-Tac-Toe row, column, or diagonal

Given triangle $A(2, -2)$, $B(4, 6)$,
 $C(-6, 2)$

Find the equation of the
median (line) from vertex A to
side \overline{BC}

Find the equation of the
perpendicular bisector (line) to
the line segment $A(1, 1)$
 $B(5, -1)$

Given triangle $A(3, 9)$, $B(1, 3)$,
 $C(5, 1)$

Find the equation of the
altitude (line) from vertex A to
side \overline{BC}

Given triangle $A(3, 9)$, $B(1, 3)$,
 $C(5, 1)$

Find the equation of the
altitude (line) from vertex B to
side \overline{AC}

Find the equation of the
perpendicular bisector (line) to
the line segment $A(-3, 2)$
 $B(1, 0)$

Given triangle $A(2, -2)$, $B(4, 6)$,
 $C(-6, 2)$

Find the equation of the
median (line) from vertex B to
side \overline{AC}

Given triangle $A(3, 9)$, $B(1, 3)$,
 $C(5, 1)$

Find the equation of the
altitude (line) from vertex C to
side \overline{AB}

Given triangle $A(2, -2)$, $B(4, 6)$,
 $C(-6, 2)$

Find the equation of the
median (line) from vertex C to
side \overline{AB}

Find the equation of the
perpendicular bisector (line) to
the line segment $A(-5, 3)$
 $B(3, -1)$

Thank You for Participating!

Carrie Hair

Washoe County School District, Reno, NV
chair@washoeschools.net

Jenny Salls

Washoe County School District, Reno, NV
jsalls@washoeschools.net



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Properties of Quadrilaterals
Matrix

Name _____
Date _____ Per _____

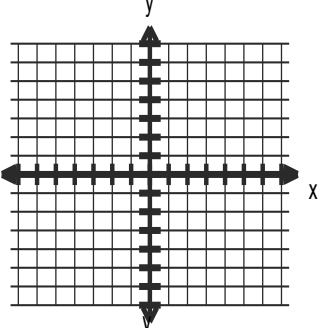
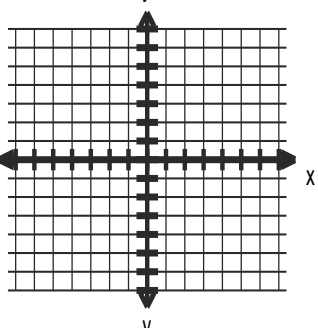
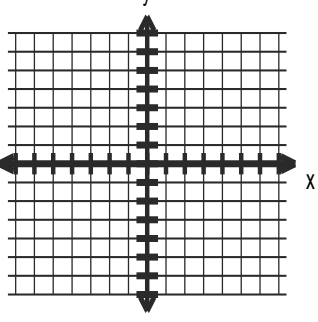
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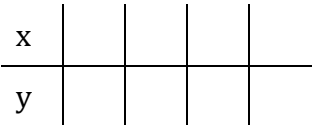
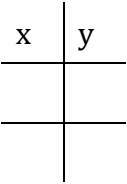
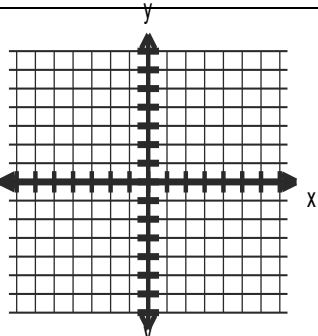
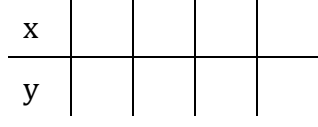
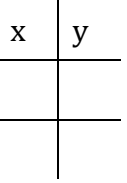
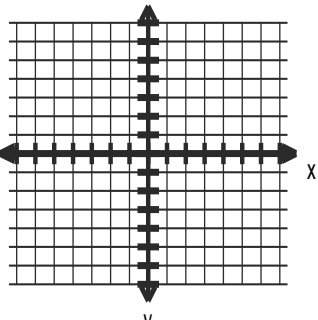
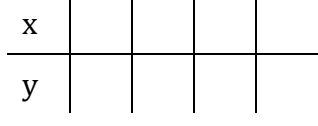
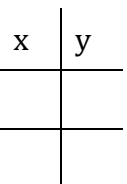
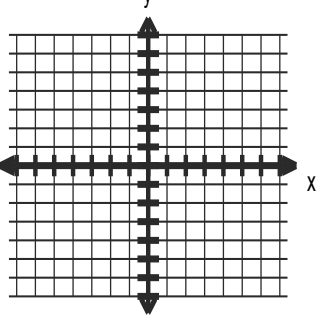
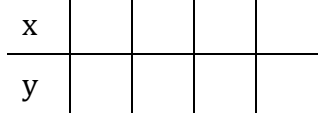
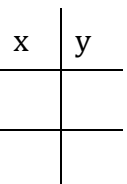
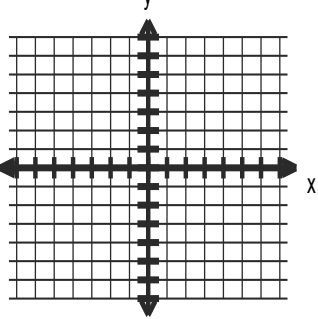
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<i>A trapezoid is a triangle.</i>	True or False					
<i>Parallelograms are quadrilaterals.</i>	True or False					
<i>A square is a rectangle.</i>	True or False					

<i>A rectangle is a square.</i>	True or False					
<i>A square is a rhombus.</i>	True or False					
<i>A rhombus is a parallelogram.</i>	True or False					
<i>The diagonals of a quadrilateral bisect each other.</i>	True or False					

Objective: I can graph an equation using an x-y table, the x- and y-intercepts, or slope-intercept form

Instructions: You must do 1 cell in each row plus the graph. You must use each of the first 3 columns at least once. Be strategic about which graphing technique you use for each problem.

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$4x - 5y = 15$			<p>Slope: _____</p> <p>y-intercept: _____</p>	
$y = 5$			<p>Slope: _____</p> <p>y-intercept: _____</p>	
$x = -4$			<p>Slope: _____</p> <p>y-intercept: _____</p>	
$3y = -2x + 6$			<p>Slope: _____</p> <p>y-intercept: _____</p>	

Objective: I can identify prime and composite numbers, find factors and multiples of a number, find the prime factorization of a number, and find the LCM and GCF of two numbers.

Instructions: You must complete 6 rows.

The tasks The problems	Identify whether you're finding primes, composites, factors, multiples, LCM or GCF and why	Describe your strategy for solving the problem	Solve the problem	Solve the problem a different way
Find the prime factorization for each of the following numbers: 84, 180, 1440				
A mystery number has 8 as a factor and 12 as a factor. a. Find the smallest positive number that fits these conditions b. Find 4 others numbers that would fit the conditions.				
In the school kitchen during lunch, the timer for pizza buzzes every 14 minutes; the time for hamburger buzzes every 6 minutes. The two timers just buzzed together. In how many minutes will they buzz together again?				

<p>The tasks</p> <p>The problems</p>	<p>Identify whether you're finding primes, composites, factors, multiples, LCM or GCF and why</p>	<p>Describe your strategy for solving the problem</p>	<p>Solve the problem</p>	<p>Solve the problem a different way</p>																									
<p>The LCM of a mystery number and 9 is 45. What could be the number?</p>																													
<p>My mystery number has 5 prime factors. Give 2 possible numbers that could be my mystery number.</p>																													
<p>Two neon signs are turned on at the same time. One blinks every 4 seconds; the other blinks every 6 seconds. How many times per minute do they blink on together?</p>																													
<p>Start at the entrance. You can only move horizontally or vertically. Find a path to the exit so that the product of every square the path passes through equals the exit number. (problem to the right)</p>			<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>5</td> <td>enter</td> <td>2</td> <td>5</td> </tr> <tr> <td>6</td> <td>3</td> <td>2</td> <td>3</td> </tr> <tr> <td>11</td> <td>7</td> <td>4</td> <td>10</td> </tr> <tr> <td></td> <td>2</td> <td></td> <td></td> </tr> <tr> <td></td> <td>2520</td> <td></td> <td></td> </tr> <tr> <td></td> <td>exit</td> <td></td> <td></td> </tr> </table>	5	enter	2	5	6	3	2	3	11	7	4	10		2				2520				exit				
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	exit																												
<p>Find all strings whose product is 630. Strings may go horizontally, vertically, or bend around corners (the x's are multiplication symbols).</p>			<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>7</td> <td>X</td> <td>3</td> <td>X</td> <td>30</td> </tr> <tr> <td>X</td> <td>5</td> <td>X</td> <td>42</td> <td>X</td> </tr> <tr> <td>6</td> <td>X</td> <td>15</td> <td>X</td> <td>21</td> </tr> <tr> <td>X</td> <td>45</td> <td>X</td> <td>9</td> <td>X</td> </tr> <tr> <td>5</td> <td>X</td> <td>14</td> <td>X</td> <td>2</td> </tr> </table>	7	X	3	X	30	X	5	X	42	X	6	X	15	X	21	X	45	X	9	X	5	X	14	X	2	
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X	5	X	42	X																									
6	X	15	X	21																									
X	45	X	9	X																									
5	X	14	X	2																									

Explanation Question

Find the "summarizing angles" handout and follow the instructions on the handout.

- * Basic angle relationships
- ** Angles on parallel lines
- *** Angles of a polygon

φφ

Application Question

Complete the "more equation practice" handout for either:

- * Basic angle relationships
- ** Angles on parallel lines
- *** Angles of a polygon

φφ

Interpretation Question

Graffiti Cards or Riddles!
Pick 6 words from the Explanation Question. Make 6 graffiti cards or riddles using the vocabulary words you chose. See the criteria and exemplars for riddles and graffiti cards.

All About Angles

Empathy Question

Make a travelogue sketching and describing where you see each of these words in school, at home, or from famous landmarks.

Select one of the word lists for either:

- * Basic angle relationships
- ** Angles on parallel lines
- *** Angles of a polygon

φφ

Perspective Question

Pick two words from the Explanation Question. Write a poem for two opposing voices. Find the "Poems for Two Opposing Voices" handout and follow the directions.

φφ You may not use the same *'d list you have used for another question.

Self-Knowledge Question

Pick the 6 words you are most uncomfortable with. Write a question that could appear on a test that involves this word. Write a solution and an explanation of your solution.

Directions: Complete all six questions in the honeycomb. Explanations are in full sentences using correct terminology. The project should be neat and easy to follow. Each question should take a minimum of one class period to complete (whatever you don't finish becomes homework.) All 6 questions will be turned in together.
Due: _____

Explanation Question
Summarizing Angle Relationships

Name _____
Date _____ Period: _____

Your task is to summarize angle relationships. You may do this on a foldable, a poster, or a mini-book. Here's what I want you to do:

1. For each term, draw a picture and describe the angle relationships you know (for example, the angles may be congruent, or they may add to 180).
2. Give an example problem that would require you know this information. (It's ok to use the problems we've done in class, *Geometry To Go*, or the Geometry textbook.)
3. While I want this neat and complete, I expect it to be finished quickly.

In some cases, you may need to mess around a little with Geometer's Sketchpad (links to sketches are on Edmodo or draw your own) or look something up in a reference book (like *Geometry To Go* or the Geometry textbook.)

Terms to summarize:

* Basic Angle Relationships

1. Supplementary angles
2. Complementary angles
3. Angle bisector
4. Linear pair
5. Vertical angles

** Angles on Parallel Lines

1. Corresponding angles
2. Alternate interior angles
3. Alternate exterior angles
4. Interior angles on the same side of the transversal (consecutive interior angles)

*** Angles of a polygon

1. Angle and side relationship of isosceles and equilateral triangles
2. Sum of the angles in a triangle
3. Exterior angle of a triangle. Be sure to describe what it is and angle relationships. (You may have to look this up.)
4. Opposite angles in a parallelogram
5. Adjacent angles in a parallelogram
6. Sum of the interior angles of a polygon
7. Sum of the exterior angles of a polygon

Name: _____

More Equations Practice

Date: _____ Period: _____

1. Simplify

a. $(3p - 7) + (8p + 6)$

b. $(9y - 14) + (6y + 4)$

c. $3(5k - 8) - 4(7k - 9)$

2. Solve and check

a. $\frac{w + 2}{8} = \frac{w}{3}$

b. $-4x + 4(2x - 1) = 20 + 3x$

c. $\frac{3}{4}x + 2x - 6 = \frac{5}{6}x + 4$

d. $5 + 3(m - 6) = 6m - 10$

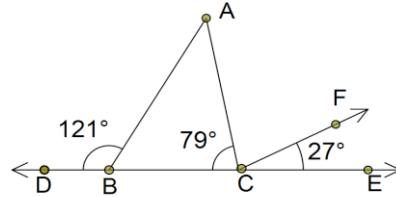
e. $\frac{2}{3}(r - 4) = r + 8$

f. $4 - 2(y + 3) = 3y + 18$

* Basic Angle Relationships

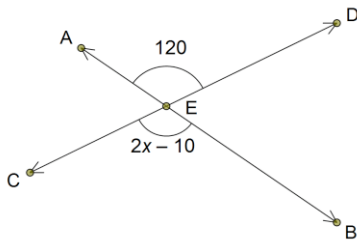
3. $\angle 3$ and $\angle 4$ form a linear pair. The measure of $\angle 3$ is four more than three times the measure of $\angle 4$. Find the measure of each angle.

4. Find the measures of the angles in the figure below:

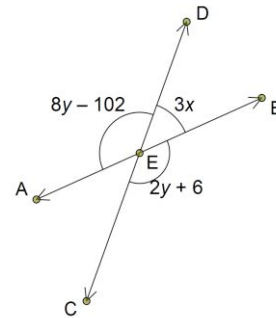


5. Find the value of each variable and the angles in the figures

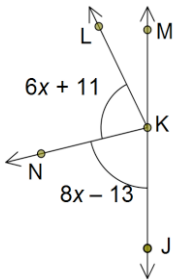
a.



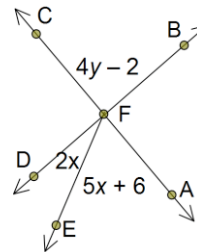
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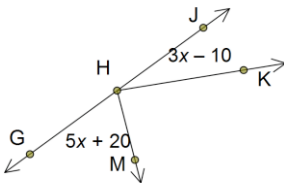
- c. \vec{KJ} and \vec{KM} are opposite rays and \vec{KN} bisects $\angle JKL$. Find $m\angle JKN$



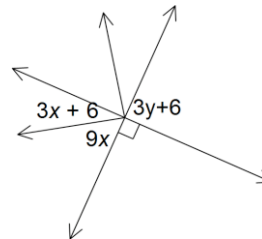
- d. Find x and y so that $\vec{FB} \perp \vec{FC}$



- e. $\angle KHJ$ and $\angle GHM$ are complementary.



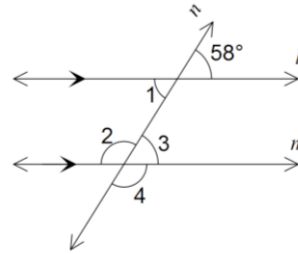
f.



**** Angles on Parallel Lines**

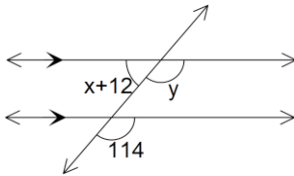
3. $\triangle ABC$ is an isosceles triangle with vertex $\angle B$. If $m\angle A = 2x + 14$ and $m\angle C = 6(5x - 7)$, find the measures of the three angles of the triangle.

4. Find the measures of the angles in the figure below:

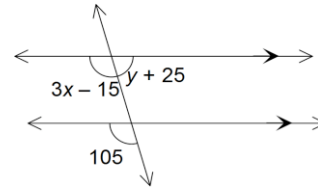


5. Find the value of each variable and the angles in the figures

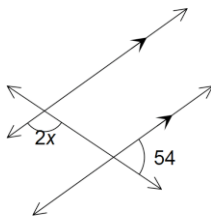
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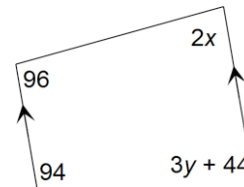
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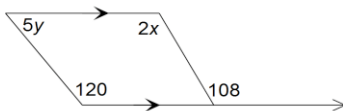
c.



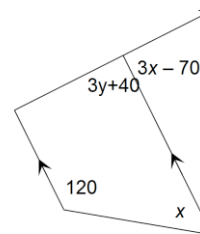
d.



e.



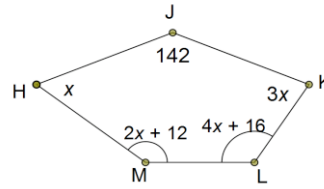
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*** Angles of a polygon

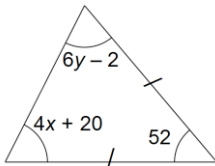
3. $\triangle ABC$ is an isosceles triangle with vertex $\angle B$. If $m\angle A = 2x + 14$ and $m\angle C = 6(5x - 7)$, find the measures of the three angles of the triangle.

4. Find the measure of each interior angle of pentagon KJKLM.

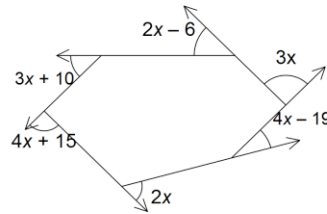


5. Find the value of each variable and the angles in the figures

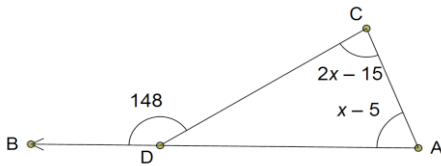
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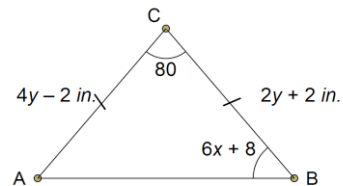
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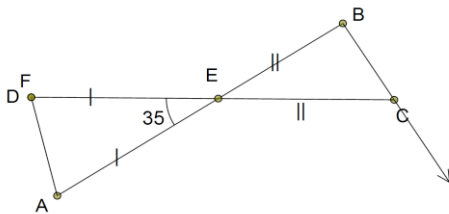
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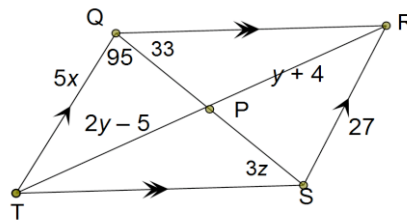
d.



e.



f.



Graffiti Cards

Criteria:

1. The card must convey the meaning of the word.
2. The card uses few or no words.
3. The picture must include important relationships implied by the word.
4. The answer and a brief explanation of your graffiti should be on the back.

Examples:

Para||e| |ines
BIS ECT



(Horizontal Line)

1

Riddles

Criteria:

1. Use first person voice.
2. Use illustrative language providing natural imagery
3. The riddle should reveal the information slowly
4. The riddle should use precise and engaging vocabulary
5. The riddle should use as many mathematical terms as possible
6. The answer should be on the back.

Examples:

Who Am I?

- I have my own special symbol
- I measure the amount of turn between two rays
- I love it when people complement me
- I am always correct
- I am formed by perpendicular lines

Who Am I?

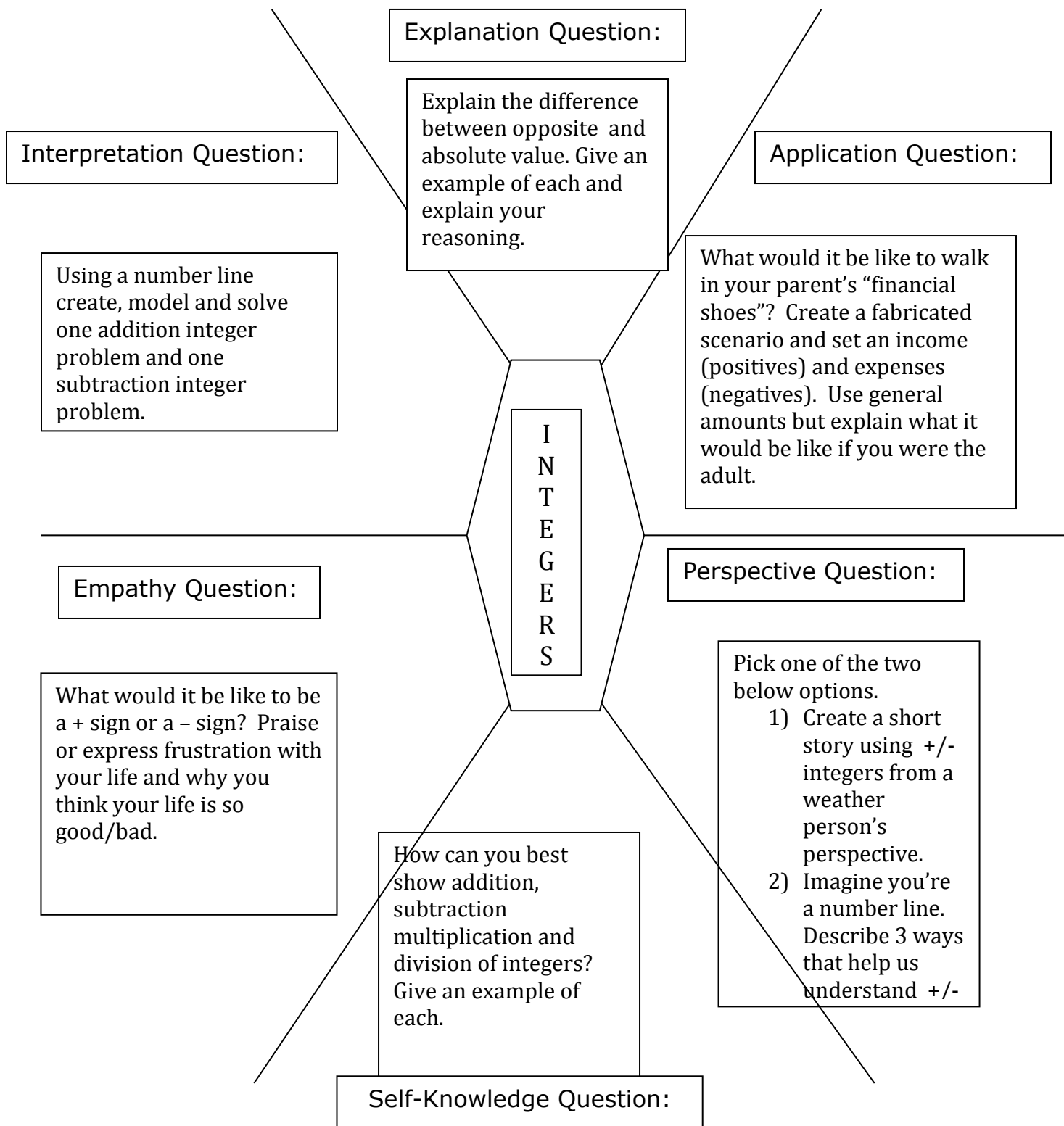
- I am not a "regular guy"
- I am a three-sided polygon
- At least two of my angles are congruent
- I am not equilateral

Travelogue Example:

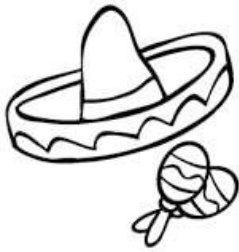
5/12/12 – Today I visited the Eiffel Tower and saw so many of my long-lost relatives! There was a marvelous tessellation of isosceles triangles surrounding the base of the tower. The tessellation was possible because of the congruence of the base angles and sides. Isosceles right triangles were formed from the squares along the legs of the tower by cutting a square into eight congruent triangles. The view from the top was glorious as I peered down over my many cousins and uncles. (This image is from eiffeltower.com)



Honeycomb on Integers.



All work must show calculations. Explanations are in full sentences using correct mathematical terminology. The project must be neat and have color, be creative.



Senorita Pelo's Mexican Restaurant

Do all work neatly on separate pieces of graph paper. Be sure you answer all questions and show all work.

Appetizer Choose one: (Practicing)

Chips and Salsa: Pink paper

Guacamole: Green paper

Quesadilla: goldenrod paper



Entree Choose one: (Processing) –

Super Burrito: Find the bingo

Chili and Cheese Con Carne: Concentration

Fish Tacos: Board Game



Side Dish Choose one: (Practicing) –

Black beans: yellow paper

Refried beans: blue paper

Spanish rice: pink paper

Dessert Choose one: (Processing/practicing)

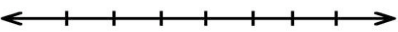
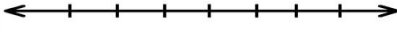
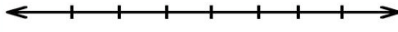
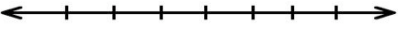
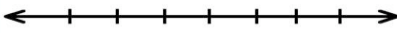
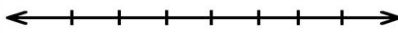
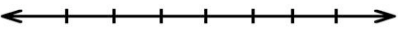
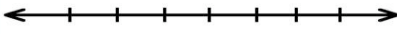
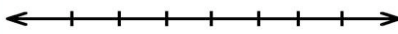
Flan: Play another group's "Find the Bingo"

Fried ice cream: Play another group's "Concentration"

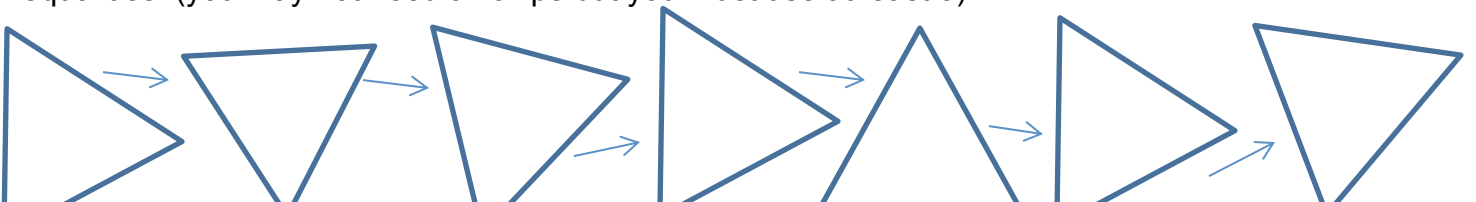
Sopapillas: Play another group's "Board Game"



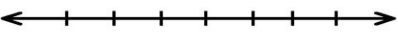
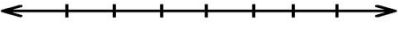
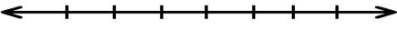
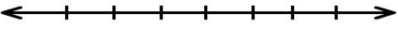
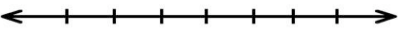
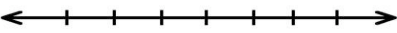
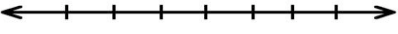
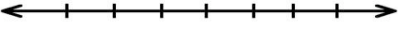
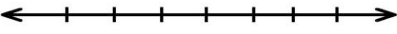
Appetizer – Chips and Salsa (pink)

$n + 7 \geq 2.4$	$\frac{3}{5}v < 6$	$-3x - 7 > 8$
Solve:	Solve:	Solve:
Graph 	Graph 	Graph 
$5x + 12 \geq -1$	$-1.2p - 4 < 24.8$	$7(s - 3) \leq -13$
Solve	Solve	Solve
Graph 	Graph 	Graph 
$3y - 5 > y - 7$	$8(c - 4) \geq 3(c + 4) + 5$	$4 + 9y - 3 \geq 3(3y + 2)$
Solve	Solve	Solve
Graph 	Graph 	Graph 

In your interactive journal: Write a flowchart on the tortilla chips for the steps needed to solve inequalities. (you may not need all chips but you must use at least 5)

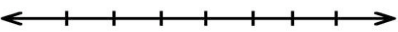
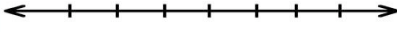
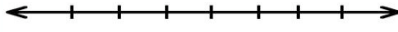
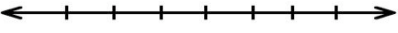
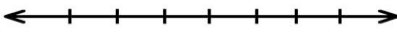
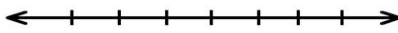
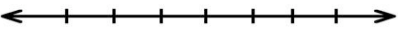
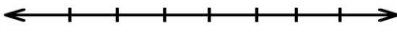
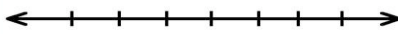


Appetizer – Guacamole (green)

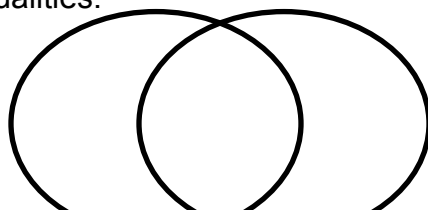
$n + 6.4 \geq -5$	$-\frac{2}{3}v < 8$	$6x - 5 > 13$
Solve:	Solve:	Solve:
Graph 	Graph 	Graph 
$-4x + 9 \geq -8$	$2.4p - 6 < 22.8$	$8(s - 5) \leq -2$
Solve	Solve	Solve
Graph 	Graph 	Graph 
$6y - 12 > 4y - 8$	$4(c - 4) \geq 2(2c + 4) + 5$	$5 + 9y - 3 \geq 2(3y + 2)$
Solve	Solve	Solve
Graph 	Graph 	Graph 

In your interactive journal: Write a recipe for “Guacamole” listing the ingredients and steps for “making guacamole” (solving inequalities)

Appetizer – Quesdilla (goldenrod)

$y - 4.5 > -2.4$	$\frac{6}{5}v < 12$	$-5x - 2 > 21$
Solve:	Solve:	Solve:
Graph 	Graph 	Graph 
$7x + 9 \geq -14$	$-1.2p - 8 < 20.8$	$6(s - 2) \leq -5$
Solve	Solve	Solve
Graph 	Graph 	Graph 
$6y - 12 > 4y - 8$	$5(c - 1) \geq 6(c + 3) - 6$	$4 + 6y - 7 \geq 2(3y + 5)$
Solve	Solve	Solve
Graph 	Graph 	Graph 

In your interactive journal: Create a quesadilla (Venn) diagram comparing and contrasting solving equations to solving inequalities.



Entrée: Super "Burr"ingo

Use the BINGO card template below to fill your possible answers, both inequalities and graphs. List the questions that correspond to some of the answers on the card. Students will have to solve your problems (minimum of 10)

B	I	N	G	O

Questions:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

9.

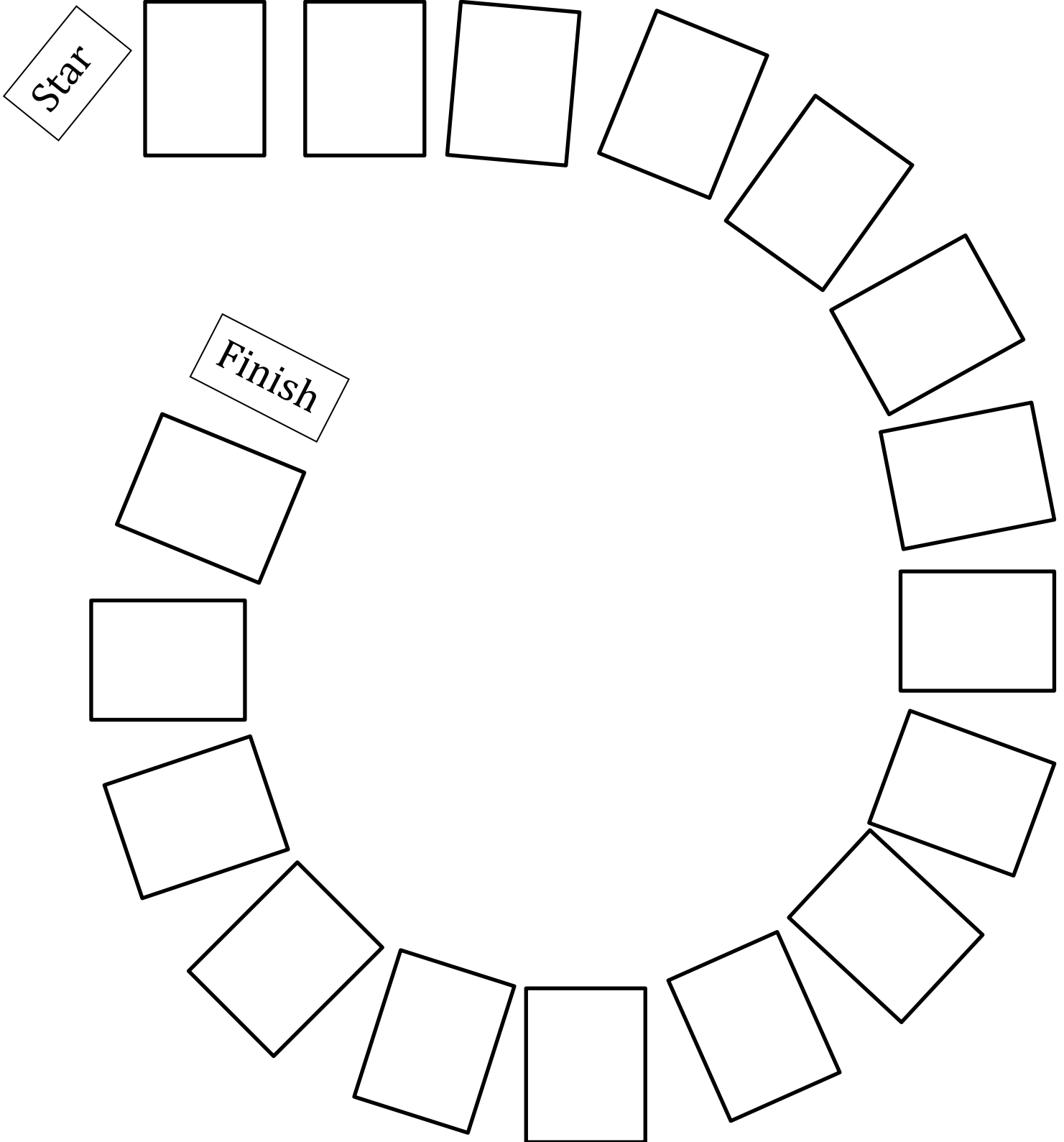
Entrée: Chili and Cheese “Con”centration Carne

10.

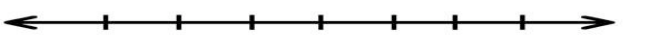
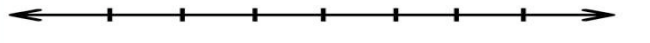
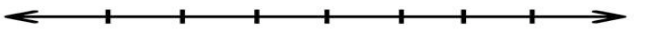
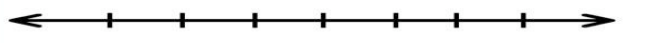
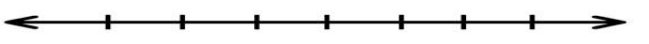
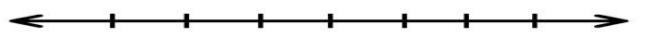
Create a Concentration game with index cards. Write the problem on one index card and the solution on the other. You must have a minimum of 24 cards (12 problems and 12 solutions). The goal of the game is to flip 2 cards over and match a problem with a solution. You can decorate the other side of the card anyway you would like.

Entrée: Fish Tacos Board Game

Board game directions: Write 15 different questions of varying difficulty on index cards. On the back of the index card write the solution and the number of spaces you get to move if the student gets it correct. You can add “fun” spaces (such as “went to math center move forward 2 spaces”) on your board game if you would like. You can use the board game template below or create your own.

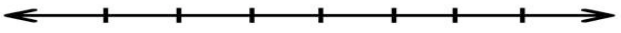
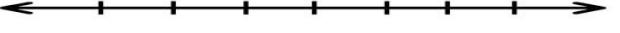
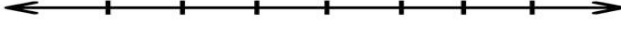
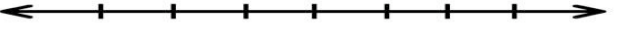
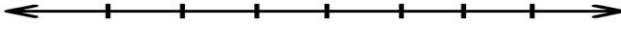
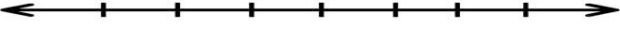


Side Dish: Black beans (yellow)

<p>The difference of c and 13 is less than -19.</p>	<p>You are checking a bag at an airport. Bags can weigh no more than 50 lbs. Your bag weighs 12.6 lbs. Find the possible weights, w, that you can add to the bag.</p>
<p>Inequality</p>	<p>Inequality</p>
<p>Solve:</p>	<p>Solve:</p>
<p>Graph</p> 	<p>Graph</p> 
<p>The quotient of v and -9 is greater than or equal to -18'</p>	<p>You have \$126 to buy CDs for your friend's party. The CDs cost \$14 each. What are the possible number of CDs you can buy?</p>
<p>Inequality</p>	<p>Inequality</p>
<p>Solve</p>	<p>Solve</p>
<p>Graph</p> 	<p>Graph</p> 
<p>The sum of $8x$ and $3x$ is greater than the difference of $9x$ and 7.</p>	<p>You are saving money for a summer camp that costs \$1800. You have saved \$700 so far and you have 22 more weeks to save for the total amount. What are the possible average amounts of money that you can save per week in order to have a total of at least \$1800?</p>
<p>Inequality</p>	<p>Inequality</p>
<p>Solve</p>	<p>Solve</p>
<p>Graph</p> 	<p>Graph</p> 

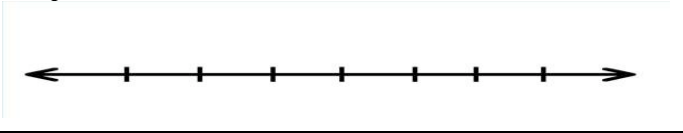
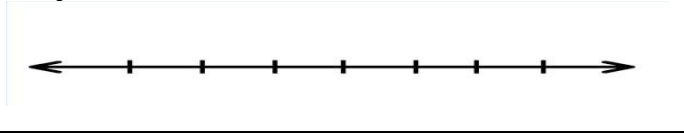

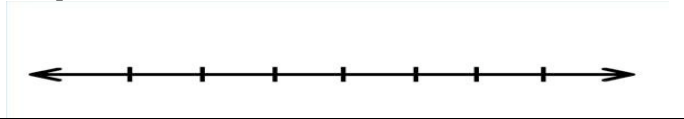


In your Interactive Journal: Respond to the following questions. Is it possible to check all the numbers that are solutions of an inequality? Does checking one solution guarantee that you have solved an inequality correctly? Explain your answers.

Side Dish: Refried beans (blue)

<p>The difference of r and 23 is greater than -14.</p>	<p>You are checking a bag at an airport. Bags can weigh no more than 50 lbs. Your bag weighs 16.8 lbs. Find the possible weights, w, that you can add to the bag.</p>
<p>Inequality</p>	<p>Inequality</p>
<p>Solve:</p>	<p>Solve:</p>
<p>Graph</p> 	<p>Graph</p> 
<p>The quotient of v and -6 is less than or equal to -24.</p>	<p>You have \$90 to buy CDs for your friend's party. The CDs cost \$18 each. What are the possible number of CDs you can buy?</p>
<p>Inequality</p>	<p>Inequality</p>
<p>Solve</p>	<p>Solve</p>
<p>Graph</p> 	<p>Graph</p> 
<p>The sum of $5x$ and $2x$ is greater than the difference of $9x$ and 4.</p>	<p>You are saving money for a summer camp that costs \$1800. You have saved \$500 so far and you have 14 more weeks to save for the total amount. What are the possible average amounts of money that you can save per week in order to have a total of at least \$1800?</p>
<p>Inequality</p>	<p>Inequality</p>
<p>Solve</p>	<p>Solve</p>
<p>Graph</p> 	<p>Graph</p> 

In your Interactive Journal: Respond to the following questions. Is it possible to check all the numbers that are solutions of an inequality? Does checking one solution guarantee that you have solved an inequality correctly? Explain your answers.

Side Dish: Spanish Rice (pink)

<p>The difference of y and 18 is greater than or equal to -23.</p>	<p>You are checking a bag at an airport. Bags can weigh no more than 50 lbs. Your bag weighs 22.7 lbs. Find the possible weights, w, that you can add to the bag.</p>
<p>Inequality</p>	<p>Inequality</p>
<p>Solve:</p>	<p>Solve:</p>
<p>Graph</p> 	<p>Graph</p> 
<p>The quotient of x and -7 is less than or equal to -35.</p>	<p>You have \$128 to buy CDs for your friend's party. The CDs cost \$16 each. What are the possible number of CDs you can buy?</p>
<p>Inequality</p>	<p>Inequality</p>
<p>Solve</p>	<p>Solve</p>
<p>Graph</p> 	<p>Graph</p> 
<p>The sum of $4x$ and $7x$ is greater than the difference of $9x$ and 12.</p>	<p>You are saving money for a summer camp that costs \$1800. You have saved \$700 so far and you have 8 more weeks to save for the total amount. What are the possible average amounts of money that you can save per week in order to have a total of at least \$1800?</p>
<p>Inequality</p>	<p>Inequality</p>
<p>Solve</p>	<p>Solve</p>
<p>Graph</p> 	<p>Graph</p> 

In your Interactive Journal: Respond to the following questions. Is it possible to check all the numbers that are solutions of an inequality? Does checking one solution guarantee that you have solved an inequality correctly? Explain your answers.

Restaurant Comment Card (to be completed after dessert):

1. What was your favorite part of the “dessert” you played?
2. What was your least favorite part of the “dessert” you played?
3. How could the “dessert” be improved?

Restaurant Comment Card (to be completed after dessert):

1. What was your favorite part of the “dessert” you played?
2. What was your least favorite part of the “dessert” you played?
3. How could the “dessert” be improved?

Linear Equations -
Geometry Applications

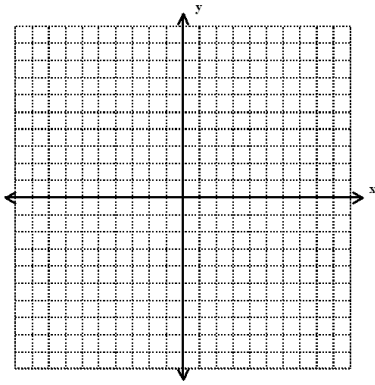
Name _____
Date _____ Per _____

Complete one Tic-Tac-Toe row, column, or diagonal

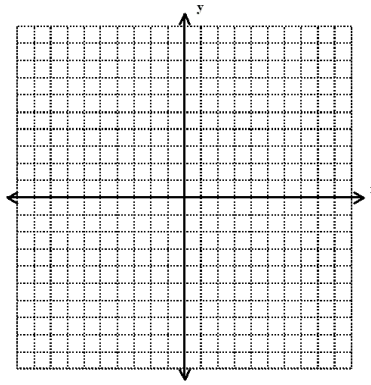
<p>Given triangle $A(2, -2), B(4, 6), C(-6, 2)$</p> <p>Find the equation of the median (line) from vertex A to side \overline{BC}</p>	<p>Find the equation of the perpendicular bisector (line) to the line segment $A(1, 1) \quad B(5, -1)$</p>	<p>Given triangle $A(3, 9), B(1, 3), C(5, 1)$</p> <p>Find the equation of the altitude (line) from vertex A to side \overline{BC}</p>
<p>Given triangle $A(3, 9), B(1, 3), C(5, 1)$</p> <p>Find the equation of the altitude (line) from vertex B to side \overline{AC}</p>	<p>Find the equation of the perpendicular bisector (line) to the line segment $A(-3, 2) \quad B(1, 0)$</p>	<p>Given triangle $A(2, -2), B(4, 6), C(-6, 2)$</p> <p>Find the equation of the median (line) from vertex B to side \overline{AC}</p>
<p>Given triangle $A(3, 9), B(1, 3), C(5, 1)$</p> <p>Find the equation of the altitude (line) from vertex C to side \overline{AB}</p>	<p>Given triangle $A(2, -2), B(4, 6), C(-6, 2)$</p> <p>Find the equation of the median (line) from vertex C to side \overline{AB}</p>	<p>Find the equation of the perpendicular bisector (line) to the line segment $A(-5, 3) \quad B(3, -1)$</p>

Show your work below:

Question 1:



Question 2:



Question 3:

