Instructions for Cooperative Learning Activities

A bag contains clues for students to solve a mathematical situation.

Before:

1. Have clues cut and packaged in baggies or envelopes
2. Decide the approximate time for students to complete the activity (it should be brief)
3. Go over the rules with the class

Rules:

1. **Each person can ONLY look at his/her own clue cards.**
    a. No one gets to look at the clues until they are passed out.
    b. A team member can read his clues to the group.
    c. A team member can ask another member to read his/her clue.
2. Each person is responsible for his/her clue or information.
3. Each person is expected to contribute to the solution of the problem.
4. Diagrams, pictures, images, descriptions, etc are encouraged for solving the problem.
5. Work together to answer the question posed.
6. Solutions will be discussed in _____ minutes.

During:

1. Arrange for groups of 3-6
2. Have one person from each group come pick up a bag of clues
3. At the appropriate time, the clues are dealt to the team until all cards are given out. If there are 6 clues, 2 people will have 1 clue card and 2 people will have 2 clue cards.
4. Remember, no looking!!!
5. Diagrams, pictures, images, descriptions, etc are encouraged for solving the problem.
6. There may be extraneous information.

Follow-up Discussion:

1. Solution (Ask questions and expect class input)
2. Various methods of arriving at the solution
    a. Emphasize problem-solving strategies (so when they must do it individually)
3. Explanations of solution(s)
    a. Reasonableness
4. Extraneous information
5. Variations if something changes within the problem
    a. What if information changes or more information is given?

Notes:

There should always be extraneous information
Application problems (word) already are clue-like.

LaToya and Kirk

Clue #1: The length from LaToya's shoulder to the top of her head is 24 cm.

Work with your group to figure out how high Kirk is now compared to the top of the kitchen counter.

LaToya and Kirk

Clue #2: LaToya is standing on a kitchen stool 42 cm high. Kirk is her pet spider.

Work with your group to figure out how high Kirk is now compared to the top of the kitchen counter.

LaToya and Kirk

Hint: Make a diagram to help.

Clue #3: **LaToya's kitchen stool has four legs and a yellow top.**

Work with your group to figure out how high Kirk is now compared to the top of the kitchen counter.

LaToya and Kirk

Clue #4: The stool is next to the counter whose top is 73 cm above the floor. LaToya is 159 cm tall.

Work with your group to figure out how high Kirk is now compared to the top of the kitchen counter.

LaToya and Kirk

Clue #5: Kirk was sitting on LaToya's hand, but then he jumped off and let out a strand of silk 108 cm long.

Work with your group to figure out how high Kirk is now compared to the top of the kitchen counter.

LaToya and Kirk

Clue #6: LaToya's hand is held out at shoulder height, which for LaToya would be 135 cm if she were standing on the floor. But she is not standing on the floor.

Work with your group to figure out how high Kirk is now compared to the top of the kitchen counter.

LaToya and Kirk clues

Clue #1: Randy has some $1 bills in his wallet.

Work together to determine the number of each type of bill Randy has.

Clue #2: He counts his money and finds that he has $47.

Work together to determine the number of each type of bill Randy has.

Clue #3: He has 15 bills in all.

Some of the bills are the new type.

Hint: Write an equation

Work together to determine the number of each type of bill Randy has.

Clue #4: Randy also has some $5 bills in his wallet.

Hint: Write an equation that expresses the value of money Randy has. Would this be an equality or an inequality relationship.

School Newspaper

Clue #1: You are designing a newspaper page with three photos.

Work with your group to figure out how wide you should make the photos so they fit evenly across the page.

School Newspaper

Clue #2: You need to allow ¾ inch between photographs

Work with your group to figure out how wide you should make the photos so they fit evenly across the page.

School Newspaper

Clue #3: The page is 13 ¼ inches wide.

Work with your group to figure out how wide you should make the photos so they fit evenly across the page.

School Newspaper

Clue #4: You want to make the photos fit across the page evenly. They are all of equal size.

Hint: Make a diagram to help.

Work with your group to figure out how wide you should make the photos so they fit evenly across the page.

School Newspaper

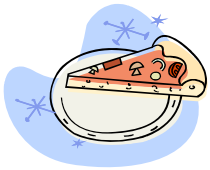
Clue #5: The page is 15 inches high with 1 inch margins all around.

Work with your group to figure out how wide you should make the photos so they fit evenly across the page.

School Newspaper

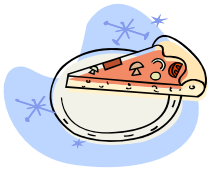
Clue #6: You are using a computer to change the size of the photos. The height changes appropriately when the width is changed.

Work with your group to figure out how wide you should make the photos so they fit evenly across the page.



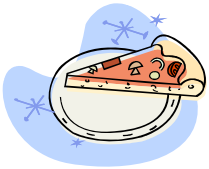
Clue #1: You have $18.25 to spend on pizza.

Work with your group to determine: What is the maximum number of toppings you can put on your pizza?



Clue #2: Pizza costs $14 for the basic pizza.

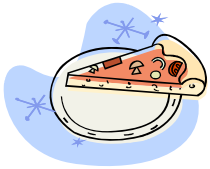
Work with your group to determine: What is the maximum number of toppings you can put on your pizza?



Clue #4: Each topping costs $.75 Your favorite topping is pepperoni.

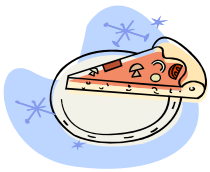
Hint: Write an inequality to express this cost relationship.

Work with your group to determine: What is the maximum number of toppings you can put on your pizza?



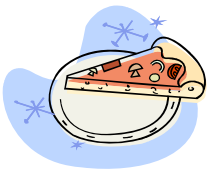
Clue #3: Tax is included in the cost. If you spend more than $17, you get free bread sticks.

Work with your group to determine: What is the maximum number of toppings you can put on your pizza?



Clue #5: You have three friends with you to help you eat the pizza. The Supreme Deluxe pizza has 4 toppings for $18.00.

Work with your group to determine: What is the maximum number of toppings you can put on your pizza?



Clue #6: Drinks cost $1.50 each. There is a special for 3 drinks and a large special pizza with 4 toppings for $18.00

Work with your group to determine: What is the maximum number of toppings you can put on your pizza?