Problem Solving using Inequalities Gallery Walk

This activity will have four stations. First, the group will interpret the problem and write an inequality that represents the situation. At the next station, the group will interpret the problem and decide whether they agree with the written inequality. If they agree, they solve it. If they do not agree, they write an inequality and solve it. At the third station, the students will check and graph the solution. At the last station, the group will interpret the solution and graph, by reflecting on how well the inequality, solution, and graph represent the problem.

After the students have gone through all 4 stages of the activity, the teacher should facilitate a discussion to debrief the activity. Guiding questions could include:

- What commonalities did you observe between the 4 problems?
- Were the problems solved in similar ways? If so, how were they similar? If not, how were they different?
- Were the graphs similar or different from each other?
- Did you see a great variety of techniques for addressing the problem? How can you account for the variety of techniques in solution processes?

Niko is going skiing. A ski pass costs $35 and he can rent equipment for $8.50 an hour. If he has $75, how many hours can he ski?

Kayla is cutting fabric to make costumes for Halloween. She needs each piece to be 16 1/4 inches long. If she has 124 inches of fabric, and she has already made 2 costumes, how many more costumes can she make?

Li wants a new cellphone plan. The plan is $35 a month plus .15 for each text. She can only spend $50 a month. How many texts can she send?

Jason is building a deck and needs to cut pieces of wood 14 1/2 inches long. He has 12 boards that are 10 feet long. If he already has 5 pieces cut, how many more pieces can he cut from the lumber?

1. Read and interpret the following problem and begin by writing an inequality that represents the situation. Be sure to show all of your work.

2. Do you agree with the inequality to question 1?

YES - then solve.

NO – Write an inequality and solve.

3. Graph the solution.

4. Interpret the solution. Do the inequality, graph and solution make sense in the context of the problem? Why or why not?

Discussion.

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Observational Checklist

Objectives:

1. Write an inequality to represent a contextualized situation.
2. Solve an inequality.
3. Graph an inequality
4. Evaluate how well the work of other groups corresponds to the problem context.

Coding:
I=Student needs instruction and cannot yet achieve this objective.
P=Student needs more practice on this objective, but is beginning to understand.
A=Student is ready to apply this objective to various situations.

	Objective #1			***Objective #2***			***Objective #3***			***Objective #4***		
Student	***I***	***P***	***A***	***I***	***P***	***A***	***I***	***P***	***A***	***I***	***P***	***A***
Comments												
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