

Name: Ginger Sheets

Grade Level: Algebra 1 or Algebra 2 (I did it in my Algebra 2 classes)

Topic: Cool Tools to Solve Challenging Word Problems

- A. Objectives (P.A.S.S.): Algebra 1: Standard 1, 1, 2a; Standard 2 8a,b
Algebra 2: Standard 1, 1
- B. Instruction: I have two classes of Algebra 2, 4th hour and 7th hour. I split my classes into groups of five (varies with the number of students in your class). Each group had to come up with five word problems with work and answers included turned into me by the end of the hour. The next day, I put them back into their same groups and asked 7th hour 4th hours questions and vice versa. I numbered the questions and had group 1 draw a number. Group 1 has three minutes to answer the question while group 2 is working the question at the same time. If group 1 misses the question group 2 has a chance to respond and vice versa. At the end of the hour, whichever group has the most points wins the game. I usually give the winners a choice between bonus points or a candy bar.
- C. Assessment: I give an attitude and participation grade.
- D. Modifications/Accommodations: If they are working hard, but do not finish the 5 problems in 1 class hour you could take more the 1 day. If three minutes is not long enough for the groups to finish working the word problems during the game you could extend it to four minutes.
- E. Reflections: Next time I will be more specific on the type of word problems I want. Some groups did 5 of the same type of problems.

EXAMPLE PROBLEMS MY STUDENTS CAME UP WITH:

1. The can has a height of 1 foot. If the radius of the base is 3 inches, what is the volume of the can?
2. $\frac{7}{9}$ of the people sleep with the light on. If 5028 people do not sleep with the light on, how many do?
3. Find four consecutive odd integers such that 8 times the sum of the first and third is 9 less than the product of 17 and the fourth.
4. 3 times a number is decreased by 7 and the difference is divided by 2. The result is 8 less than 10 times the number. What is the number?
5. The supplement of an angle is the square root of 625. What is the measure of the other angle?