Due: Monday, 11/19

FORMAT
- Write neatly and clearly on white paper (lined or unlined)
- Attach one POW cover sheet to the front of your work for turn in, your work on problems 1 and 2 will be assessed together. You do not need to use Polya's four steps.

PROBLEMS

1.
    a. As a warm up solve the two questions in the following *Puzzler*. You may show minimal work for this step.

3.4 *Conceptual Approach* Puzzler from the Bennett/Nelson OLC
Krypto is a commercially produced game containing cards numbered from 1 through 25. The object is to combine the numbers on five cards that are randomly selected so as to obtain the number on a sixth card, the target number. Any of the four basic operations may be used, but each of the five cards must be used once and only once. How can each of the following sets of cards be used with all four operations to obtain the target numbers?

	5 cards to use					Target Number
Set 1	22	19	2	14	10	7
Set 2	21	2	3	12	7	20

    b. Clearly showing your solution path and explaining your reasoning; solve the next three Krypto puzzles as determined by the given three card sets. If your solution path is only random guessing and checking, you will receive at most 50% credit. Approach these problems logically using a problem solving approach that shows number sense.

	5 cards to use					Target Number
Set A	2	4	17	23	35	19
Set B	12	14	16	32	45	15
Set C	3	5	17	30	122	11

2. Clearly showing your problem solving process and using detailed mathematics; explain why the Activity Set 3.4 Just for Fun: ***Arabian Nights Mystery*** (page 73 of your *Activity Approach* text) works.

Hint: Think about factors, multiplying and dividing