## **General reminders**

1. Read each problem carefully! Many problems tell you to do multiple things. A very common error being made is to only answer the first part of the problem.

## READ THE PROBLEM CAREFULLY!

2. Double-check your answers! This is <u>especially</u> important if one calculation is used for multiple problems. Don't blow 5 or 6 problems because you made one simple, silly error!

#### **DOUBLE-CHECK YOUR ANSWERS!**

3. Have your theorem and postulate list ready to go.

- Write the theorem/postulate number.
- Write the name/title of the theorem/postulate ... this is what you'll remember.
- WRITE THE THEOREM/POSTULATE IN YOUR OWN WORDS!

## Lesson 2-1, pg 71

The most missed problems were #45, 47 and 51.

#### <u>#45 & 47</u>

Remember, problems such as:

- $x^2 = 4$
- |x| = 6

each have two answers! Thus if you have a conditional whose hypothesis is such a statement, the converse <u>must</u> provide both answers for the conditional to be considered true.

#### <u>#51</u>

You have to be very careful when drawing conclusions about shapes/figures. It is far easier to write a conditional about a shape that can not be reversed (converse) than it is to write a true biconditional about it. Play with the shape to see if you can find a counter-example: stretch it, squish it, bend it, break it. ;) Draw a picture, play with your pencils, or use a piece of paper. Think out-side the box!

# Lesson 2-2, pg 78

The most missed problems were #17 and 21.

Both these problems have the same basic issue that #51 of L2-1 does. Be careful and think out-side the box!

## Lesson 2-3, pg 84

The most missed problems were #6, 8, 38 and 44.

#### <u>#6 & 8</u>

To use the Law of Detachment to draw a conclusion the following <u>must</u> be true:

1. The conditional must be true.

2. The specific situation must  $\underline{directly}$  relate to the hypothesis of the conditional. The problem most of you had was with the second requirement.

## <u>#11-15</u>

You may need to rearrange the statements to get them in the necessary order...

#### <u>#38 & 44</u>

Again, same basic issue as #51 of L2-1 ... be <u>very</u> careful and think-outside the box. Draw pictures, arrange segments with your pencils, pretend your desktop is a plan, etc, etc, etc.

# Lesson 2-4, pg 91

The most missed problems were #2 and 27.

Both of these are proofs. First, this takes practice. If you don't practice doing proofs, you will never ever get it. Well, unless you have a brain like Einstein.

- 1. You <u>must</u> go step-by-step and justify every step.
- 2. You <u>must</u> understand your postulates, properties, theorems, etc.
- 3. You **<u>must</u>** have your theorem & postulate list at hand.
- 4. To get started:
  - a. Write down the starting point and ending point.
  - b. Look at the diagram (or draw one).
  - c. Identify angle (segment, line, etc) relationships that give more info.
  - d. Express this info in algebra statements
  - e. Boil the algebra statements down to a final statement that leaves you at the end point (what you are trying to prove).
  - f. Use the properties of equality, congruence, postulates, theorems, etc. to justify each step.

# Lesson 2-5, pg 100

The most missed problems were #53, 58 and 59.

## <u>#53</u>

Word problems...translate into "math" one word/phrase at a time. Do it right above the words in the problem sentence. This will give you an algebra equation you can easily solve.

#### #58 and 59

Use angle pair relationships to build a set of algebra equations. Combine them using substitution and solve.

# **Proofs**

You <u>must</u> go step-by-step and justify every step.

You <u>must</u> understand your postulates, properties,

theorems, etc.

To get started:

1. Starting and ending points

2. Diagram

3. Identify relationships

4. Into algebra statements

5. Boil it down

6. Justify (POE, POC, postulates, theorems, etc)