

Name: LaRie Hillman

Grade Level/Subject: Geometry

Topic: Altitude, Median, and Angle Bisector of a Triangle

Objectives (P.A.S.S.): Geometry Standard 1: 3 Use logical reasoning skills to make and test conjectures, formulate counter examples, follow logical arguments, judge the validity of arguments and construct simple valid arguments.

Introduction: This is one of the Texas Instrument Activity Exchange ideas available for use with the new included Cabri Jr Apps on the TI-84 Silver Calculators or can be downloaded on other TI-83 plus or -84 plus calculators. Full instructions can be downloaded for the student, along with "Teacher Notes" to help with instruction. I also recommend printing Appendix B "Cabri Jr. Tool Guide" (available for download in the lesson online) to have easy reference as needed.

Instructional process: Students may need to be given a few basic instructions dealing with accessing the Cabri Jr. program and the pull-down menus in the program if they have not used it before, but in general this is an exploration with thorough instructions in their 2-1/2 page activity sheet. If the classes are very large, a few copies of the 9 page Tool Guide might be available for student reference, but close teacher supervision (with one copy of the guide) is probably sufficient in most classes.

Closure: Near the end of class, a discussion of what kinds of triangles seem to have special properties or relations with the altitude, median, and/or angle bisector should help all students come to similar final conclusions that they can verify through theorems or postulates found in their textbook.

Assessment: Students should record their answers to the 5 questions & conjectures asked on the activity sheet to be handed in to the teacher or put in their geometry notebooks for later grading.

Modifications/Accommodations: This can be done individually or in pairs. Number of calculators available as well as level of students and their ability to read and follow instructions may help decide whether to make this individual or not.

Reflection: I'm not sure any activity attempted before has had as much variation in the amount of time required from start to completion. I'm not sure what the solution to that is. Maybe a day to play with and discover what they can about Cabri Jr. and how it works before being given a specific assignment using it. These calculators and the program are new to us this year, so we (the students & I) are all learning about them with each usage.