



*Integrated Math IB*  
Module 10



Student Name: \_\_\_\_\_ Teacher Name: \_\_\_\_\_

As you work through the chapters in your Integrated Math 1 course, you will be encouraged to think and to make conjectures while you persevere through challenging problems and exercises. You will make errors – and that’s okay! Learning and understanding occur when you make errors and push through mental roadblocks to comprehend and solve new and challenging problems.

Text: *Integrated Math I*, Big Ideas, 2016

**To ensure you are learning, you must show your work for all exercises.  
YOU WILL NOT EARN CREDIT FOR ANSWERS WITHOUT WORK.**

**Chapter 12: Congruent Triangles (12.1-12.8)**

- \_\_\_\_\_ Maintaining Mathematical Proficiency (page 585): Complete exercises #1-8 all
- \_\_\_\_\_ 12.1 Angles of Triangles: Read the lesson and complete exercises #1, 3-7 all, 11-16 all, 19, 23, 27
- \_\_\_\_\_ 12.2 Congruent Polygons: Read the lesson and complete exercises #3-8 all, 13, 14, 16, 17, 26, 27, 28
- \_\_\_\_\_ 12.3 Proving Triangle Congruence by SAS: Read the lesson and complete exercises #1, 2, 3, 5, 7, 9, 10, 13, 25, 32, 33, 34
- \_\_\_\_\_ 12.4 Equilateral and Isosceles Triangles: Read the lesson and complete exercises #1, 2, 7-11 all, 19, 42, 43, 44
- \_\_\_\_\_ 12.5 Proving Triangle Congruence by SSS: Read the lesson and complete exercises #1, 3-8 all, 15, 19, 37, 38, 39, 40
- \_\_\_\_\_ 12.6 Proving Triangle Congruence by ASA and AAS: Read the lesson and complete exercises #1, 3, 4, 5, 6, 9, 16, 34, 35, 36
- \_\_\_\_\_ 12.7 Using Congruent Triangles: Read the lesson and complete exercises #1, 3, 4, 5, 8, 23

*Students must complete the Chapter Review and Project with a teacher or tutor at school.*

- \_\_\_\_\_ Chapter Review (pages 646-650): Complete exercises #1-25 all
- \_\_\_\_\_ Complete the attached Project (No project = No credit)

A teacher or tutor reviewed the Chapter Review and Project with the student.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

<i>Grade</i>
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**Integrated Math 1 Project**  
**Module 10: Congruent Triangles**  
**Textbook Pages 585-652**

**Creating A Logo**

Many company logos make use of geometric shapes, including congruent triangles. What are the properties of these shapes that make them attractive? For this project you will learn about the process of logo design. Then, following the constraints given, you will create your own logo and justify how your shape contains the required properties.

First, watch the following video:

<https://www.youtube.com/watch?v=x3jTSB2cz-g>

**Search for: The Art of Logo Design, Off Book, PBS Digital Studios**

1. Search the Internet and find two different company logos that include a variety of basic shapes. Make sure each logo has at least one triangular shape. Sketch the logos below and use terminology from this chapter to describe the triangle(s) used in each one.

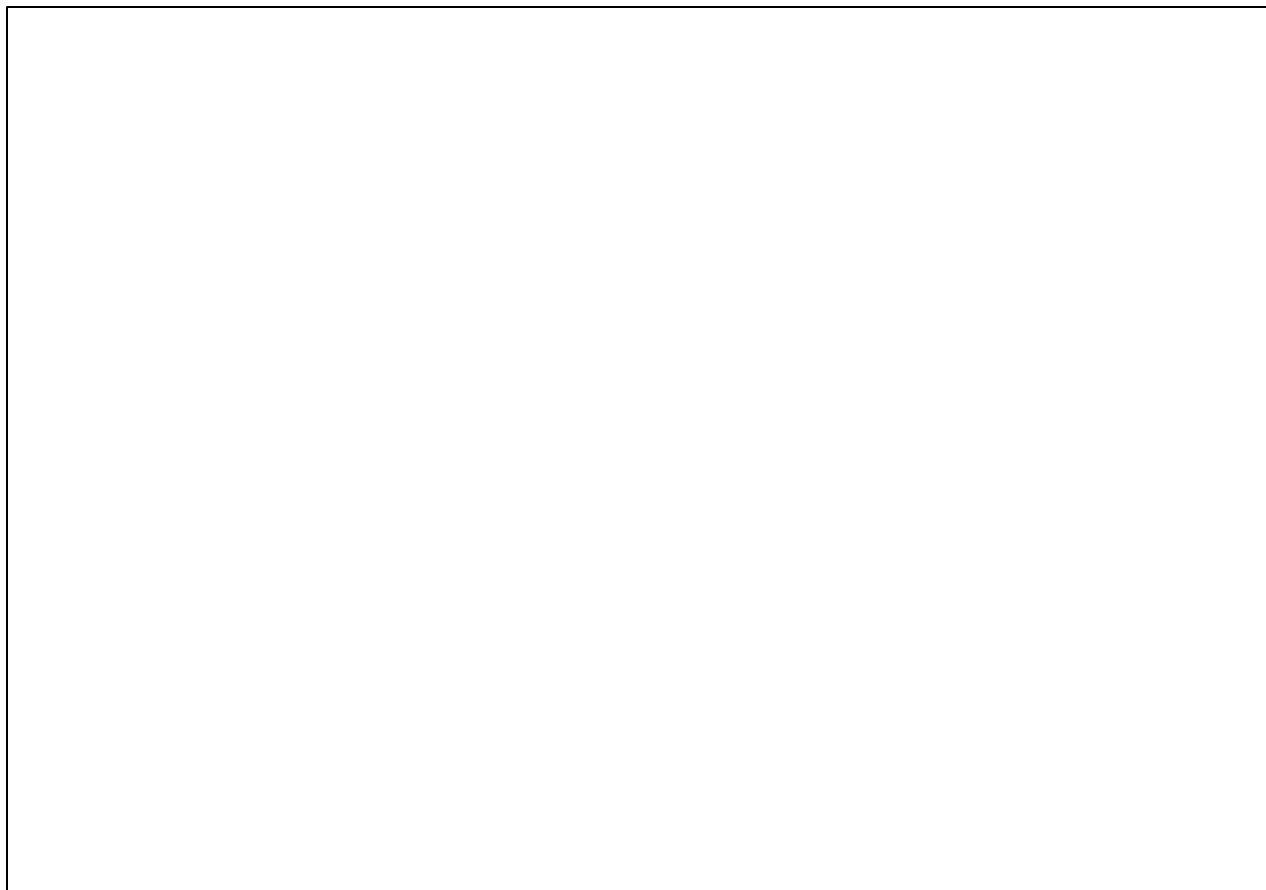
Logo 1

Triangle(s) \_\_\_\_\_

Logo 2

Triangle(s) \_\_\_\_\_

2. You have been hired to create a logo for a company called GEOMETRICS that sells school supplies for math teachers. The president of the company is obsessed with triangles and insists that the logo include **one scalene triangle, two CONGRUENT isosceles triangles, and one obtuse triangle**. Use the space below to try some design ideas and use the space below that for your final logo design. You should use a protractor and a ruler. Be sure to include color!



FINAL DESIGN:



3. Now you have to SELL your logo to the president of GEOMETRICS. Write a paragraph describing how you used the required triangles in your design, and how you know the isosceles triangles are congruent. The president knows his geometry so be sure to use plenty of vocabulary from this chapter when you describe your design.

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