

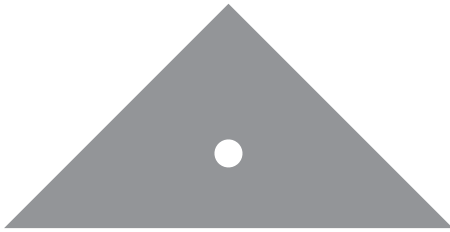
# TANGRAM SHAPES

## STUDENT HANDOUT

### **PART 1 - ALL ABOUT THE TANGRAM SHAPES**

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1. Sort! Sort the Tangram Adventure pieces by their shape, then fill in the information about each one.

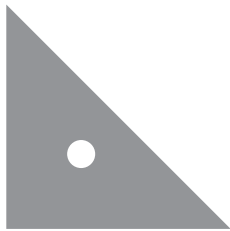


Shape? \_\_\_\_\_

How many? \_\_\_\_\_

Size (circle one)?    Big    Medium    Small

Colors? \_\_\_\_\_

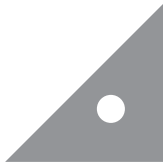


Shape? \_\_\_\_\_

How many? \_\_\_\_\_

Size (circle one)?    Big    Medium    Small

Colors? \_\_\_\_\_

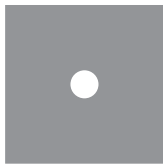


Shape? \_\_\_\_\_

How many? \_\_\_\_\_

Size (circle one)?    Big    Medium    Small

Colors? \_\_\_\_\_



Shape? \_\_\_\_\_

How many? \_\_\_\_\_

Size (circle one)?    Big    Medium    Small

Colors? \_\_\_\_\_



Shape? \_\_\_\_\_

How many? \_\_\_\_\_

Size (circle one)?    Big    Medium    Small

Colors? \_\_\_\_\_

2. Compare! Look at the yellow triangle and the purple triangle. What is the same about them? What is different?

What is the same?

What is different?

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3. Guess! How many small triangles do you think would cover the big triangle?



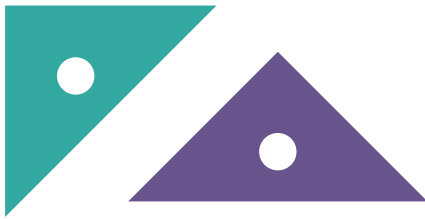
## **PART 2: SHAPE COMPARISONS**

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4. Try! Using only the two small triangles try to make these other shapes:

Use these pieces:

Make the medium triangle (draw it):



Make a square (draw it):

Make a parallelogram (draw it):

**5. Compare! Which do you think is bigger (circle one)?**

Two Small Triangles • One Blue Square • They Are The Same



How do you know?

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**6. Compare! Which do you think is bigger (circle one)?**

One Medium Triangle • Two Small Triangles • They Are The Same



How do you know?

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**7. Compare! Which do you think is bigger (circle one)?**

Two Small Triangles • Green Parallelogram • They Are The Same



How do you know?

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**8. Compare! Which do you think is bigger (circle one)?**

One Blue Square • One Medium Triangle • They Are The Same



How do you know?

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**9. Compare! Which do you think is bigger (circle one)?**

Green Parallelogram • Blue Square • They Are The Same



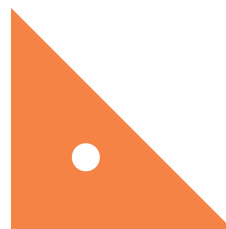
How do you know?

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**10. Compare! Which do you think is bigger (circle one)?**

Green Parallelogram • Orange Triangle • They Are The Same



How do you know?

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## PART 3 - COMPARING & PROVING

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11. Try! Using the two small triangles and the medium orange triangle, try to make these other shapes:

Use these pieces:

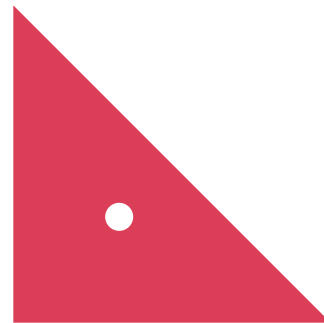


Make a big triangle (draw it):

Make a square (draw it):

Make a parallelogram (draw it):

12. Prove! Show that the red triangle is the same size as the green parallelogram and the two small triangles put together by drawing them on top of it.



**13. Prove!** How can you prove the yellow triangle is the same size as the green parallelogram and the blue square put together? Describe how you can do it.

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**14. Now sort the Tangram Adventure pieces again, this time by their sizes.**

	How Many	Which Ones?
Small		
Medium		
Big		

**15. Check!** Based on what you have learned, how many small triangles would it take to cover one of the big triangles? Does this match your guess from part 2?

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