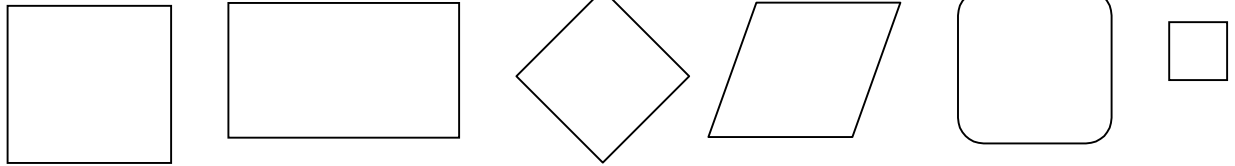


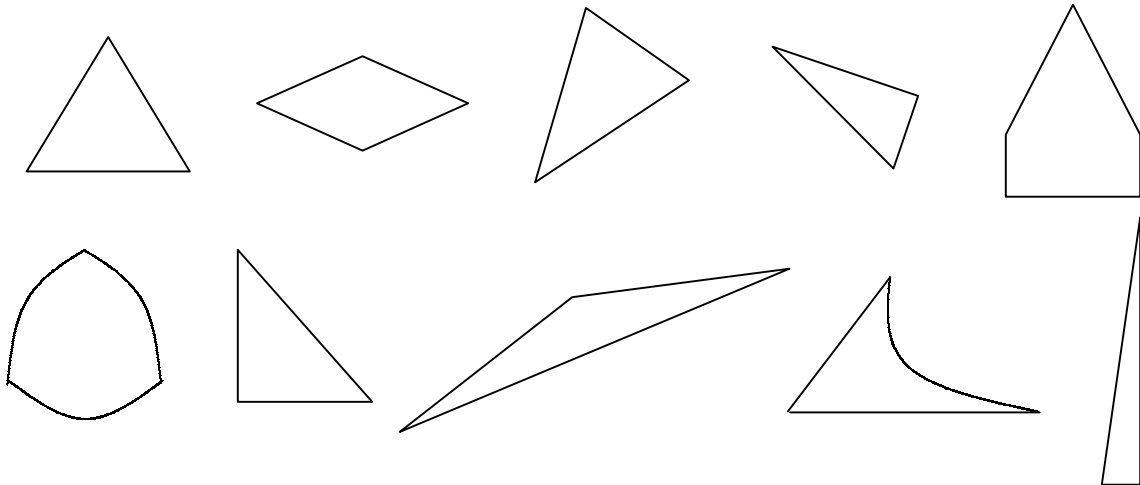
Geometry Assessment

Name: _____

1. Circle the shapes that are squares.

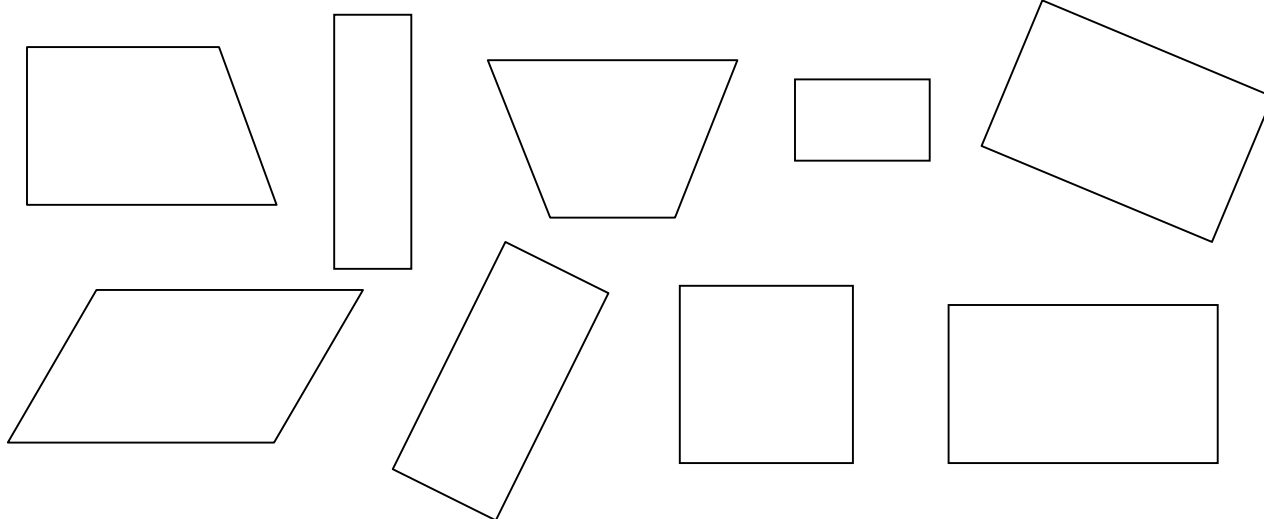


2. Circle the shapes that are triangles.

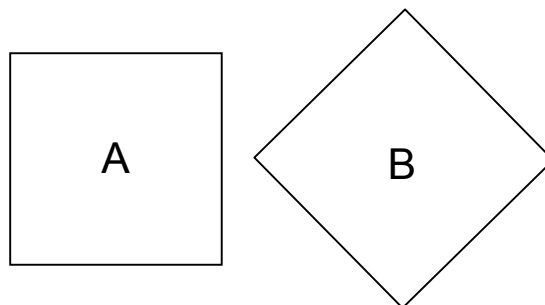


Tasks 1-3 adapted from: Clements, D. H., Swaminathan, S., Hannibal, M. A. Z., & Sarama, J. (1999). Young children's concepts of shape. *Journal for Research in Mathematics Education*, 30, 192-212.

3. Circle the shapes that are rectangles.



4.

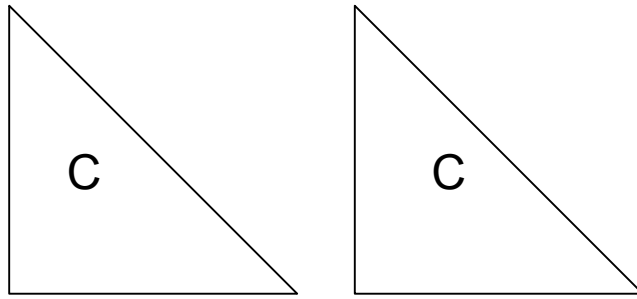


In what ways are shapes A and B **alike**? List as many ways as you can.

In what ways are shapes A and B **different**? List as many ways as you can.

Task 4 adapted from: The National Center for Education Statistic's National Assessment of Educational Progress, released items.

Find the two pieces labeled C in your envelope.

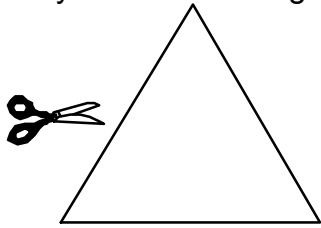


5. Use the two pieces labeled C to make a 4-sided shape that **is** a square.
Trace the shape and draw the line to show where the 2 pieces meet.

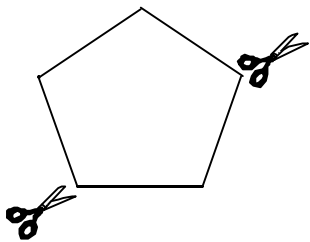
6. Use the two pieces labeled C to make a 4-sided shape that **is not** a square.
Trace the shape and draw the line to show where the 2 pieces meet.

Tasks 5 and 6 adapted from: The National Center for Education Statistic's National Assessment of Educational Progress, released items.

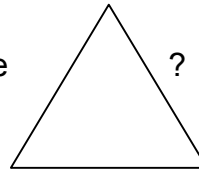
7. If you cut this triangle which the two pieces will you have? Circle your answer.



8. If you cut the pentagon, which two pieces will you have? Circle your answer.

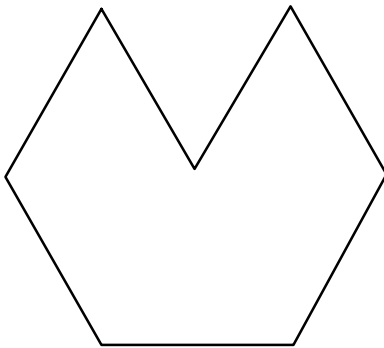


9. Can each of these puzzles be filled with **exactly 5** green triangles just like this one

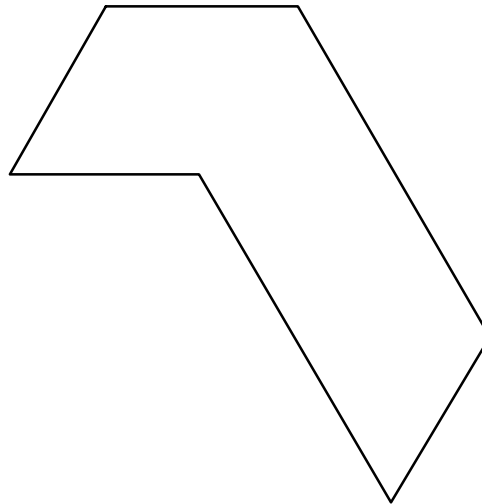


Circle "yes" or "no" for each.

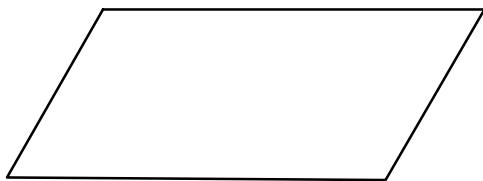
yes no



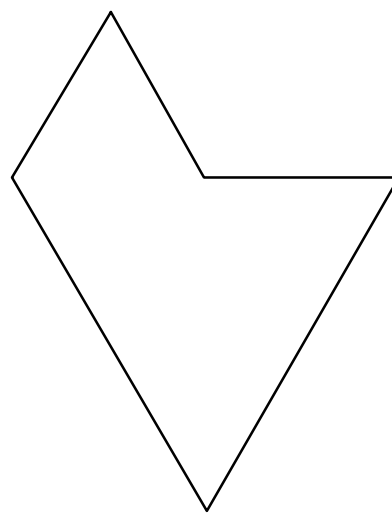
yes no



yes no

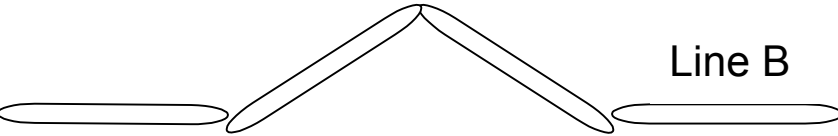
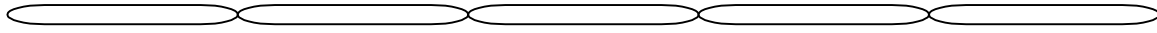


yes no

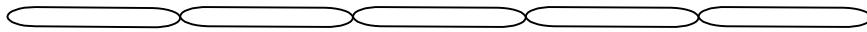


10.

Line A



Line B



Line C

Circle the words that belong in the blank.

Line A is _____ line B.
longer than the same length as shorter than

How did you figure out your answer?

Circle the words that belong in the blank.

Line C is _____ line B.
longer than the same length as shorter than

How did you figure out your answer?

11. In each of the pictures below, you see a piece of wood being measured with a ruler. Next to each picture, write down how long the piece of wood is.



Length: _____ inches



Length: _____ inches

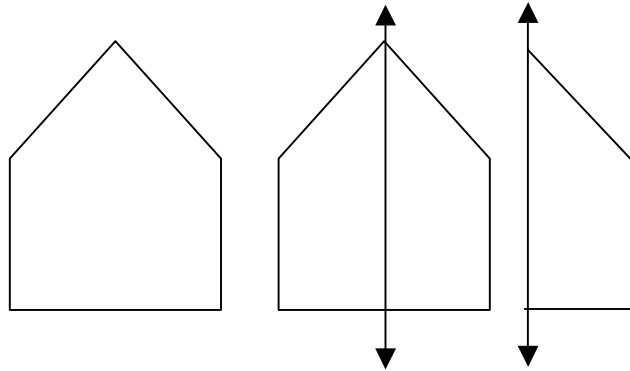


Length: _____ inches

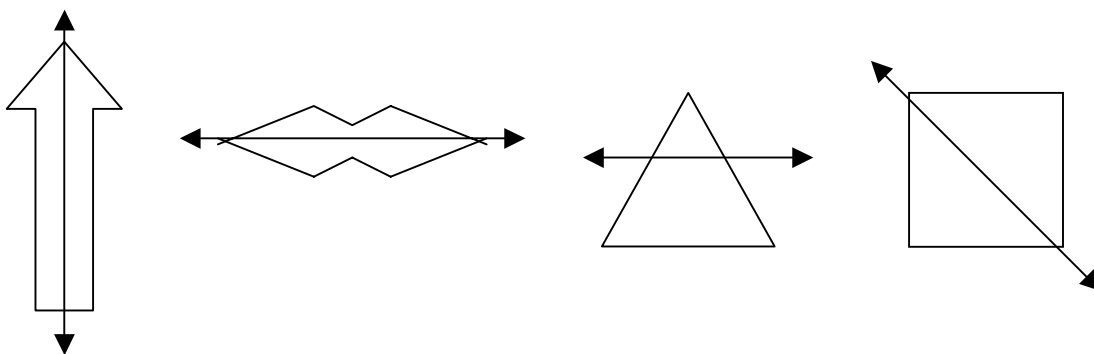


Length: _____ inches

A shape has **symmetry** if you can fold it so that one side fits exactly on top of the other side. The line you fold the shape on is called a **line of symmetry**.



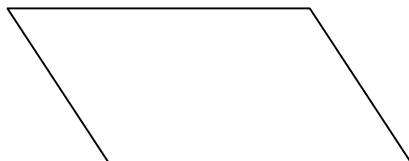
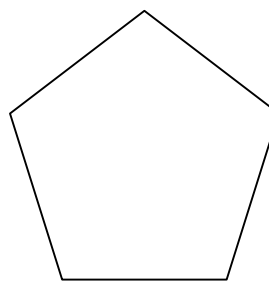
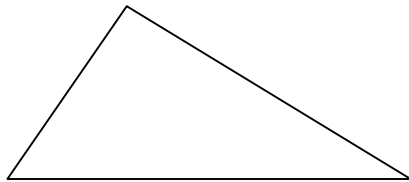
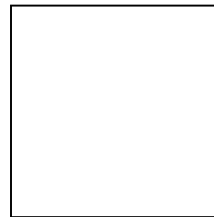
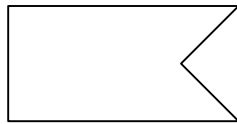
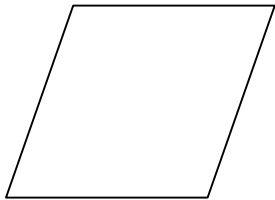
12. Circle any picture that does **not** show a **line of symmetry**.



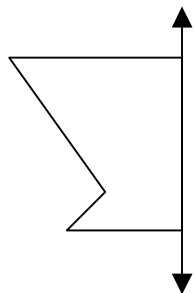
Draw another **line of symmetry** on the pictures, if you can.

Task 12 adapted from: The International Study Center's Third International Mathematics and Science Study, released items.

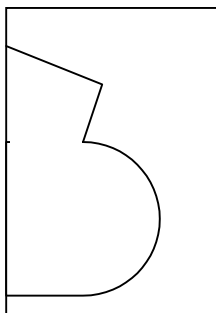
13. For each figure, decide if it has one or more **lines of symmetry**. If it does, draw all the **lines of symmetry**. If it does not, write **NO** on it.



14. Half of this shape is missing and the **line of symmetry** is for the whole shape. Draw the half of the shape that is missing.



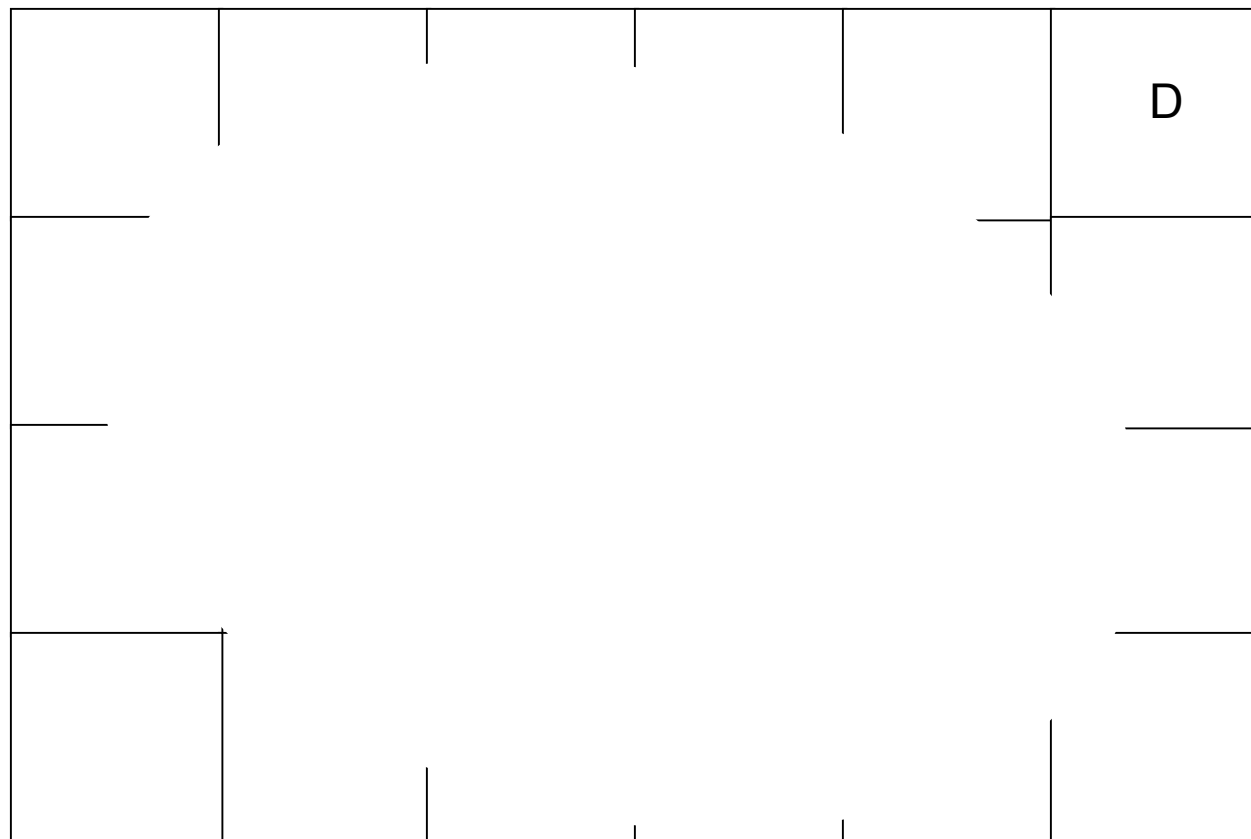
15. A student folded a piece of paper in half and cut out a shape. It looked like this.



Draw a picture to show what the cut-out shape will look like when it is opened up and flattened out.

Task 15 adapted from: The International Study Center's Third International Mathematics and Science Study, released items.

16. Square D from your envelope is the same size as the squares shown on the rectangle. Draw where you think the squares would be on the rectangle if it were completely covered.



How many squares will it take to completely cover the inside of this rectangle? _____

Please explain how you got your answer.

Task 16 adapted from: Battista, M. T., Clements, D. H., Arnoff, J., Battista, K., & Borrow, C. V. A. (1998). Students' spatial structuring of 2D arrays of squares. *Journal for Research in Mathematics Education*, 29, 503-532.