



## Mathematics

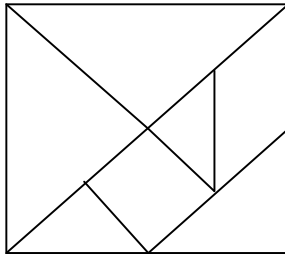
Name: \_\_\_\_\_

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

Class: \_\_\_\_\_

### Exploring Tangrams

A tangram is a Chinese puzzle consisting of seven geometric pieces called tans. The tans can be fit together to form various shapes. The tangrams can be challenging and fun in understanding the various geometric figures around us. When the tans are put together in a special manner, they form a big square. The tans can also be put together in other ways to form many different shapes.



No one knows when and where the tangram was invented. Many people believe it was invented in China hundreds of years ago. According to one story, a servant of the Chinese emperor dropped an expensive square tile. The servant tried to put the pieces back together. He was unable to make a square, but he made several other shapes. This gave someone the idea for tangrams. In time the puzzle spread from China to other parts of the world.

### Your task

1. You will draw a tangram.
2. You will cut out the tans.
3. You will use the tans to form at least three shapes.

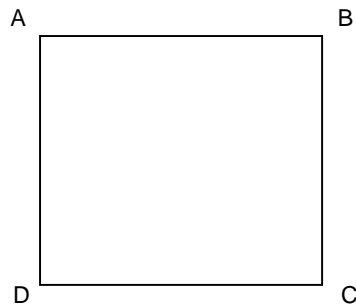
### To be submitted

Sketches of at least three shapes you made with your tans.

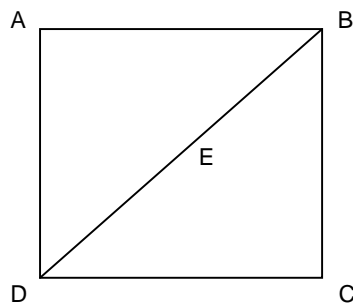
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**Key steps to make a tangram:**

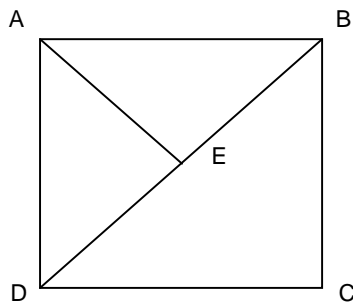
1. Use a ruler to draw a square with sides of 10 centimetres.
2. Start at the upper left corner and label the vertices (corners) A,B,C and D by moving right, down and left. See the sample below.



3. Draw line segment BD. Find the midpoint of line segment BD by measuring with your ruler. Label the midpoint E.



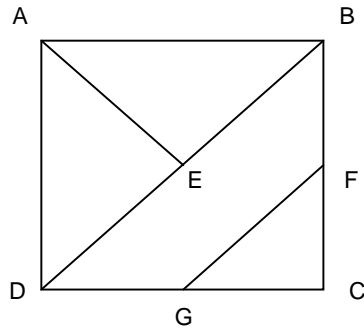
4. Draw line segment AE.



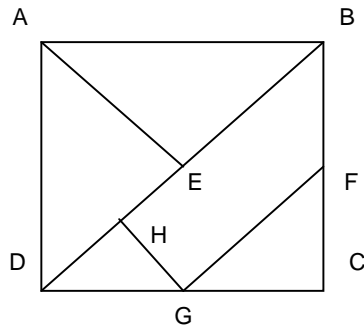


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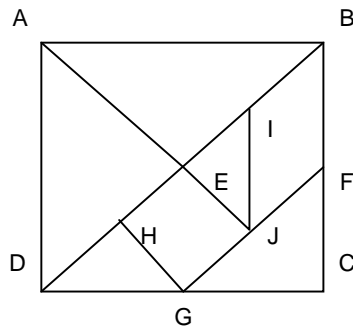
5. Find the midpoint of the segment BC. Label the midpoint F.
6. Find the midpoint of line segment DC and label the midpoint G.
7. Draw line segment FG.



8. Find the midpoint of line segment DE and label it H.
9. Draw line segment HG.



10. Find the midpoint of line segment EB and label it I.
11. Find the midpoint of line segment FG and label it J.
12. Draw line segments IJ and EJ.



Cut neatly along the lines to make your tans. For a warm-up, try putting the tans back together to form the square again. Then try putting them together to form a rectangle. Use your imagination. Put your tans together to make more shapes.

