

# Teamwork



## Get Started



Get paper and a pencil.

Put **1** **2** **3** **4** in a bag.

## Repeat for Each Round

Choose **a**, **b**, or **c**.

Pick a tile. Pick two tiles if your group has only two students.

Do the jobs listed below in order.

To find your job, find the number that matches the tile you chose.



**1** Read the problem. Tell your team what you know and what you have to find.



**2** Work with your team to solve the problem.

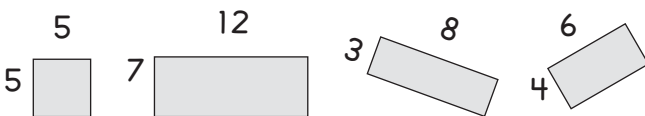


**3** Make a generalization. Explain it.

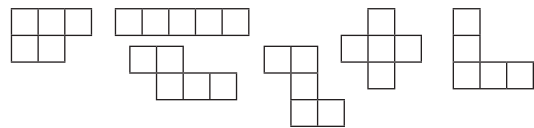


**4** Discuss whether there can be more than one correct generalization. If there can be another generalization, describe it.

- a. Which rectangles have the same area? What generalization can you make about the areas and the dimensions of these rectangles?



- b. Every pentomino has an area of 5 square units. Here are some pentominoes. Do they all have the same perimeter? What generalization can be made about pentominoes?



- c. A diagonal is a straight line segment that can be drawn in a polygon to connect two of its vertices. A side of a polygon can never be a diagonal. How many diagonals does each polygon have? Copy and complete the table. What generalizations can you make about the number of sides a polygon has and the number of diagonals it has?



Polygon	Number of sides	Number of diagonals
Triangle	3	0
Square		
Pentagon		
Hexagon		
Octagon		

If you have more time



Work together to create another problem from which you can make a generalization. Repeat steps 1 – 4 for your problem.