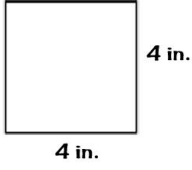


Math Challenge #13

First Name: _____	Last Name: _____	Grade: _____
Teacher: _____	Parent's email: _____	

Perimeter

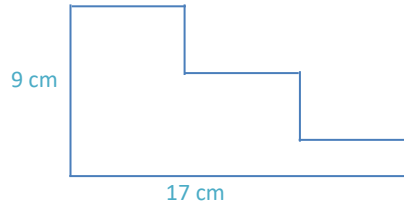
In this math challenge, we will be solving problems involving a specific term called **perimeter**. Perimeter is the distance around a 2-dimensional object. You find the perimeter of a shape by adding the lengths of the sides. For example, a square has four sides. To determine the perimeter of this square, just add the four sides together. Since every side of a square is the same, the perimeter is: 4 inches + 4 inches + 4 inches + 4 inches = 16 inches.



Kinder & First Grade: solve at least 3 problems.
 Second & Third Grade: solve at least 6 problems.
 Fourth Grade and above: solve at least 12 problems.

<i>Problems</i>	<i>Answer</i>
1. What is the perimeter of a square with side length of 6 cm? Express your answer in cm.	
2. An equilateral triangle is a triangle in which all three sides are equal. Lisa drew an equilateral triangle that measured 3 inches on each side. What is the perimeter of the triangle that she drew?	
3. Laura's bedroom shape is a square. The side's length is 11 feet long. What is the perimeter of her bedroom?	
4. A rectangular room is 12 feet long and 9 feet wide. Find its perimeter in feet.	
5. Shota's room is in a shape of a regular hexagon (how cool that is!). The perimeter of his room is 78 feet. Find the length of each side.	
6. Ender measured the perimeter of his rectangular bedroom. If the perimeter is 46 feet and its length is 14 feet, what is the measurement of the width of his bedroom?	
7. Justin cut a piece of square paper with side length 5 cm. Elizabeth cut a piece of rectangular paper that is 8 cm long and 6 cm wide. They put together their papers to make the shape as the figure on the right. What is the perimeter of the figure?	
8. A piece of square paper with side length 18 cm was cut into half as in the picture. What is the perimeter of each new piece of paper?	
9. The figure below is made up of 3 identical squares. Each side of the square measures 6 inches. What is the perimeter of the figure?	

10. What is the perimeter of the figure below? All angles in the figure are right angles.
Hint: do not estimate.



11. The length of a dining room is 8 feet longer than its width. If its perimeter is 84 feet. What is the measurement of the dining room?
Hint: Draw a model.

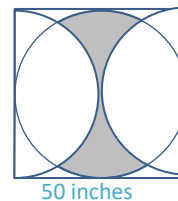


12. A large square paper was cut into half, then the results were cut again into half for a few more times. If at the end of cutting, there were 64 small squares, and each square has a side of 3 inches long, what is the perimeter of the large square paper?

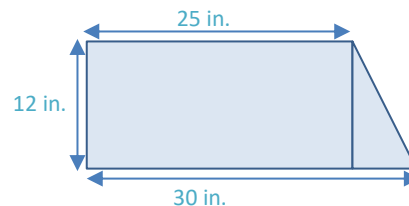
13. Neha's bedroom is 12 feet long and 9 feet wide. She wants to put a border along the top of all four walls of the bedroom. The border is sold in two yard packs. What is the least number of packs Neha can buy to have enough border to decorate her bedroom?



14. The figure on the right is made up of a square, a circle, and 2 identical semicircles. Find the perimeter of the shaded parts in the figure below. Use $\pi = 3.14$.



15. The figure on the right is made up of a rectangle and a triangle. What is the perimeter of the figure?
Hint: Find the missing length.



16. The figure on the right is made up of 3 squares and a semicircle with a diameter of 36 inches. The dot in the middle is the center of the semicircle. Find the perimeter of the entire figure. Use $\pi = 3.14$.

