

LETTER HOME

Geometric Investigations

Dear Family Member:

In this unit, your child will explore geometry and measurement, reason mathematically, and communicate about mathematics. As your child investigates relationships between length, area, and perimeter, he or she will collect and organize data, create and interpret graphs, and make and check predictions.

Along with geometric investigations, your child will also review the subtraction facts.

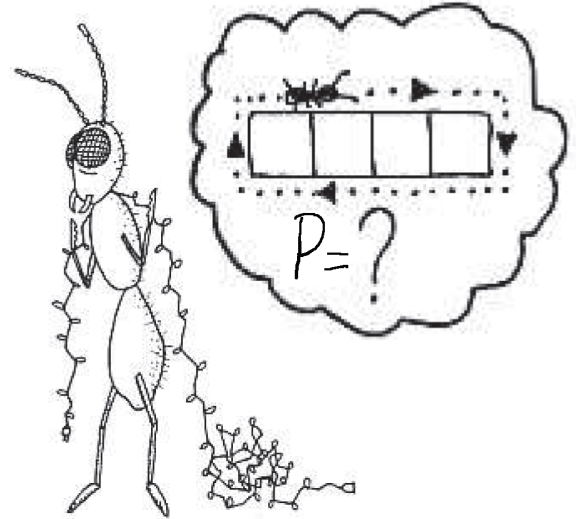
As we explore mathematics concepts in the classroom, you can help by providing mathematical opportunities at home. For example:

Design Challenge. Encourage your child to tell you about Myrna, the ant who is designing airport runways for the imaginary city of Antopolis. Ask how the class investigation will help Myrna design her runways.

Perimeter. Help your child compare the perimeters of two of the rooms in your home. The perimeter is the length around the outside border of a room.

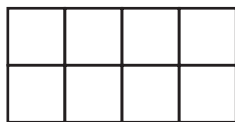
Area. Ask your child to find the area of different shapes using a variety of units and strategies.

Geometric Relationships. Help your child continue to investigate the relationships between area, perimeter and shape.

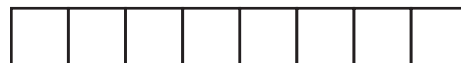


The perimeter of a rectangle is the distance around it.

- Ask your child to choose an area and make a shape with a large perimeter and a shape with a small perimeter.

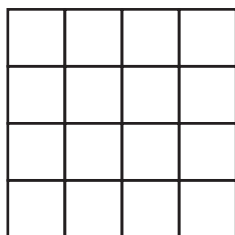


Area: 8 square inches
Perimeter: 12 inches



Area: 8 square inches
Perimeter: 18 inches

- Ask your child to choose a perimeter and make a shape with a small area and one with a large area.



Area: 16 square inches
Perimeter: 16 inches



Area: 7 square inches
Perimeter: 16 inches

- Ask your child to choose a perimeter and make two shapes with the same area.

Math Facts and Mental Math

Subtraction Facts. In this unit, students review the subtraction facts and are assessed for fluency. This review will help identify students' needs. Help your child by using the activities below.

Students should have developed fluent strategies for solving the subtraction facts in the earlier years. The subtraction facts were reviewed and sorted into groups by strategy. See Figure 1.

Groups	Facts	Strategies Used
1	12 - 9, 12 - 10, 13 - 9, 13 - 10, 13 - 4,	Using Tens or Thinking Addition
2	15 - 9, 15 - 10, 15 - 6, 19 - 10, 14 - 10, 14 - 9, 14 - 5, 17 - 10, 17 - 9, 11 - 9, 16 - 9, 16 - 7, 16 - 10	
3	10 - 4, 9 - 4, 11 - 4, 10 - 8, 11 - 8,	Making Tens and Thinking Addition
4	9 - 5, 10 - 6, 11 - 6, 11 - 5, 10 - 7, 9 - 7, 11 - 7, 10 - 2, 9 - 2, 9 - 3, 10 - 3, 11 - 3, 9 - 6	
5	7 - 3, 7 - 5, 7 - 2, 11 - 2, 8 - 6, 5 - 3,	Counting or Thinking Addition
6	8 - 2, 4 - 2, 5 - 2, 6 - 4, 6 - 2, 13 - 5, 8 - 5, 8 - 3, 13 - 8, 12 - 8, 12 - 4, 12 - 3	
7	14 - 7, 14 - 6, 14 - 8, 12 - 6, 12 - 7,	Using Doubles or Thinking Addition
8	12 - 5, 10 - 5, 13 - 7, 13 - 6, 15 - 7, 16 - 8, 17 - 8, 18 - 9, 18 - 10, 8 - 4, 7 - 4, 6 - 3, 15 - 8	

Figure 1: Subtraction Facts Groups as reviewed in earlier grades

If needed, you can help your child review these facts using the flash cards that are sent home or by making a set of flash cards from index cards or scrap paper. Study the facts in small groups each night. As your child goes through the flash cards, put the cards in three stacks: Facts I Know Quickly, Facts I Can Figure Out, and Facts I Need to Learn.

For Facts I Need to Learn, work on strategies for figuring them out.

For Facts I Can Figure Out, use the flash cards to practice the facts for fluency. Pose problems that come up in daily life. For example, "We had 12 eggs and now there are 5 left; how many have we eaten?"

For Facts I Know Quickly, help your child use strategies to solve problems like these using mental math:

Subtracting 10s, 100s, and 1000s. $9634 - 3000$, $805 - 200$, $564 - 30$

Multidigit minus one-digit problems. $98 - 9$ (practices $18 - 9$), $435 - 7$ (practices $15 - 7$),
 $234 - 6$ (practices $14 - 6$)

Thank you for taking time to talk with your child about what he or she is doing in math. I look forward to working with you and your child during this school year. Please feel free to contact me with any questions, concerns, or comments.

Sincerely,