

Dear Family,

The next unit in your child's mathematics class this year is ***Looking for Pythagoras: The Pythagorean Theorem***. Students' work in this unit develops a fundamentally important relationship connecting geometry and algebra: the Pythagorean Theorem.

UNIT GOALS

In this unit, students explore the Pythagorean Theorem, square roots, and strategies for estimating square roots. In addition, irrational numbers are introduced.

The presentation of ideas in the unit reflects the historical development of the concept of irrational numbers. Early Greek mathematicians recognized the need for such numbers as they searched for a ratio of integers to represent the length of the sides of a square with certain areas, such as 2 square units.

HELPING WITH HOMEWORK

You can help with your child's homework and encourage sound mathematical habits as your child studies this unit by asking questions such as:

- Is this a situation where it is appropriate to use the Pythagorean Theorem?
- Do I need to find the distance between two points?
- How are square roots and areas of squares related?
- How can I estimate the square root of a number?
- How can I know the length of something without directly measuring it?

In your child's notebook, you can find worked-out examples from problems done in class, notes on the mathematics of the unit, and descriptions of the vocabulary words.

HAVING CONVERSATIONS ABOUT THE MATHEMATICS IN *LOOKING FOR PYTHAGORAS*

You can help your child with his or her work for this unit in several ways:

- Ask your child to explain the ideas presented in the text about finding distances.
- Discuss with your child how the Pythagorean Theorem is applied by people in some careers, such as carpenters, architects, and pilots.
- Look over your child's homework and make sure that all the questions are answered and that explanations are clear.
- Have your child pick a question that was interesting to him or her and explain it to you.

A few important mathematical ideas that your child will learn in *Looking for Pythagoras* are given on the back. As always, if you have any questions or concerns about this unit or your child's progress in class, please feel free to call.

Sincerely,