

The Common Denominator
A Family Math Newsletter
Mathematics 6 GT Unit 6: Some Important Geometric Ideas

Unit at a Glance:

Suggested Length of Unit: 15 days (45 minutes), 7.5 days (90 minutes)

- Translations
- Reflections and Reflection Symmetry
- Rotations and Rotation Symmetry
- Tessellations
- Angles and Lines
- Angles and Parallel Lines
- Properties of Parallelograms
- The Triangle-Sum Property
- Calculating the Distance between Points

Resources

- Textbook Resource: Viktora, Steven S, et al. Transition Mathematics. Wright Group/McGraw-Hill, 2008, pp. 356-427.
- Homework Help/Online book (teacher-provided code needed): [Online Textbook Portal](#)

Exploring Chapter 6

The title of this chapter suggests that this chapter contains assorted topics not necessarily related to each other but grouped together for convenience. However, this chapter is very tightly knit; the later lessons in the chapter depend on its earlier lessons.

The chapter can be split into three parts. Lessons 6-1 through 6-4 discuss the major transformations of figures that result in congruent figures. Translations, reflections, and rotations are the subject of Lesson 6-1 through 6-3, respectively. These transformations lead to a discussion of tessellations in Lesson 6-4.

The second part of the chapter, Lessons 6-5 through 6-7, is a logical discussion of the measures of angles. Lesson 6-5 discusses the angles formed by two intersecting lines. Lesson 6-6 adds a third line parallel to one of these lines and examines the eight angles formed by those lines. Lesson 6-7 adds a fourth line parallel to the other of the first two lines and looks at the quadrilateral formed—a parallelogram.

The third part of the chapter brings triangles into play. Lesson 6-8 uses parallelograms and tessellations to derive the Triangle-Sum Property. Lesson 6-9 uses the Pythagorean Theorem from Chapter 2 to calculate the distance between two oblique points on the coordinate plane. This formula will be useful in the applications of multiplication that follow in the next two chapters.

Quote

“Mathematics is, in its way, the poetry of logical ideas.” -Albert Einstein