

# Math 9A LG 12

## SYMMETRY AND SURFACE AREA

### INTRODUCTION:

Symmetry is all around us ... Check out pages 2 & 3.

### LEARNING GUIDE EXPECTATIONS:

On the completion of this learning guide you will be able to:


- 1) demonstrate an understanding of line symmetry.
- 2) demonstrate an understanding of rotation symmetry.
- 3) determine the surface area of 3-D objects.

### EVALUATION:

You are ready to progress to the next learning guide when you can demonstrate your understanding of the above expectations. Please refer to your Mathematics 9A Marks Record Sheet to determine the assessment.


### RESOURCES NEEDED:


 Math Links 9 Text

 THSS Math 9A Learning Guides and Math 9 Journal Entries Package

 Math Links 9 Practice and Homework Book

 Scissors

 Graph Paper

 Tracing paper

### LEARNING ACTIVITIES:

#### **Expectation #1: Demonstrate an understanding of line symmetry.**

1. In the Math Links 9 text, complete the *Explore Lines of Symmetry* activity questions #1, 4 on pages 6-7.
2. In the Math Links 9 text, work through Example 1 on pages 7-8. Now complete #6 on page 12. Use tracing paper if you wish.

3. In the Math Links 9 text, work through Example 2 on pages 9-10. Now complete #7 on pages 12-13.



4. Read Key Ideas on page 11. In your math journal, complete the journal entry for LG12 Expectation 1.



**Expectation #2: Demonstrate an understanding of rotation symmetry.**



1. In the Math Links 9 text, complete the Explore Symmetry of a Rotation activity on page 16.

2. In the Math Links 9 text, work through Example 1 on page 17. Now complete #4 on page 21.

3. In the Math Links 9 text, work through Example 2 on pages 18-19. Now complete #6 on page 21.



4. Read Key Ideas on page 20. In your math journal, complete the journal entry for LG12 Expectation 2.



**Expectation #3: Determine the surface area of 3-D objects.**



1. In the Math Links 9 text, work through Example 1 on pages 28-29. Now complete #4, 7 on page 32.

2. In the Math Links 9 text, work through Example 2 on pages 29-30. Now complete #9 on page 33.



3. Read Key Ideas on page 31. In your math journal, complete the journal entry for LG12 Expectation 3.



4. In the Math Links 9 text, complete #13 on pages 21-24.

**REVIEW AND CHALLENGE**



1. In the Math Links 9 text, complete Chapter 1 Review pages 36-37 #1-6, 7, 8, 10, 15, 16.