

Foundations of Math 11 LG 8&9

Oblique Triangle Trigonometry

INTRODUCTION:

A scenic hole at Nicklaus North Golf Course near Vancouver has a dogleg left. Is it possible for Jay to make the green at this hole in one shot with a 3-iron? Check out pages 158-159.

LEARNING GUIDE EXPECTATIONS:

On the completion of this learning guide you will be able to develop your spatial sense by:

- 1) using the sine law to determine side lengths and angle measures in obtuse triangles.
- 2) using the cosine law to determine side lengths and angle measures in obtuse triangles.
- 3) solving problems that can be modeled using obtuse triangles.

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 Foundations of Mathematics 11 Marks Record Sheet to determine the assessment.


RESOURCES NEEDED:

 Foundations of Mathematics 11 Text.


 THSS Math 11 Foundations Learning Guides.

 www.thssmath.com

LEARNING ACTIVITIES:

 **Expectation #1 & #2: Using the sine and cosine law to determine side lengths and angle measures in obtuse triangles.**

 1. [Watch and take notes on instructional video on Trig Ratios of Obtuse Angles.](#)

 2. In the Foundations of Mathematics 11 text, read pages 160-163 and make sure you pay attention to the green boxes and work through EXPLORE the Math on page 162. Complete **Reflecting** on page 163 (B) and **FURTHER Your Understanding #1 and #2** on page 163.



3. [Watch and take notes on instructional video on Sine & Cosine Law of Obtuse Triangles.](#)



4. Work through Example 1 on pages 165-166. Complete **Your Turn** on page 166.
5. Work through Example 2 on pages 166-167. Complete **Your Turn** on page 167.
6. Work through Example 3 on pages 167-168. Complete **Your Turn** on page 168.
7. Work through Example 4 on pages 168-169. Complete **Your Turn** on page 169.



8. Complete #1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, & 13. on pages 170-173.



9. In your math journal, complete the journal entry for LG8&9 Expectation 1&2 after you read the **In Summary** box on p. 163.



10. In your math journal, complete the journal entry for LG8&9 Expectation 1&2 after you read the **In Summary** box on p. 170.



Expectation #3: Solving problems that can be modeled using obtuse triangles.



1. [Watch and take notes on instructional video on Solving Problems with Obtuse Triangles.](#)



2. Read pages 188-190 and work through Example 1.
3. Read pages 191-192 and work through Example 2. Complete **Your Turn** on page 192.
4. Complete #1a,b, 3, 7, 9 & 11 on pages 193-197.



5. In your math journal, complete the journal entry for LG8&9 Expectation 3 after you read the **In Summary** box on p. 193.



REVIEW AND CHALLENGE

Important Term For This Learning Guide

Oblique Triangle



1. Complete **PRACTISING** #1, 3, 4, 5, 6, 8 & 9 on page 175.
2. Complete #1, 3, 4, 5, 7 Chapter Self-Test on page 198.
3. Complete #1-7 (**except #5**) Chapter 4 Review on page 200.

PRACTICE QUIZZES

[Practice quiz #1](#)

[Practice quiz #2](#)

[Practice quiz #3](#)

[Practice quiz #4](#)

[Practice quiz #5](#)