ALBERTA DISTANCE LEARNING CENTRE

Mathematics 10-3

MAT1793

Unit B: Right Angled Triangles

Chapter 4 Lesson 3

Student's Questions and Comments

FOR STUDENT USE ONLY

Student Name:

_____

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Assigned to

_____

Marked by

_____

Date received

_____

Summary

	Marks Earned	Total Possible Marks	Percent
Lesson 3		29	

Teacher's Comments:

_____

Teacher's Signature

REVISED March 2020

CANADIAN CATALOGUING IN PUBLICATION DATA

MAT1793
Mathematics 10-3
ISBN: 978-1-927090-94-7
Workbook 4

4601 - 63 Avenue
Barrhead, Alberta Canada T7N 1P4

Printed in Canada

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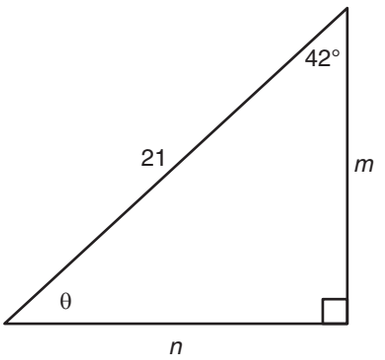
Lesson Assignment

This assignment includes short answer questions. Be sure to show all necessary work. You may ask for clarification from your teacher, but you will not be given the answer.

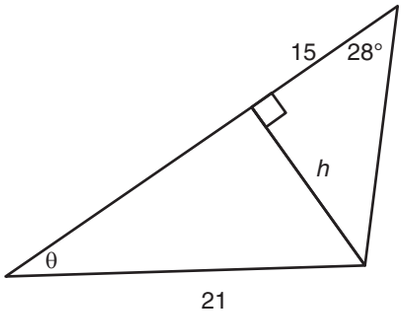
Lesson 3

Include a **formula** as part of your work where applicable.

(5) 1. Solve the following triangle. Express angle measures to the nearest degree and lengths to the nearest tenth.



(6) 2. Determine the value of θ, to the nearest degree.



(3) 3. A kite is on a 25 m string. The kite is directly above a barn that is 18 m away from the person holding the kite string. What angle does the string make with the ground?

(3) 4. A construction company is building an overpass. The length of the ramp leading to the overpass is 300 m, and the overpass is 10 m above the ground below. Determine the angle of elevation of the ramp.

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(3) 5. The Leaning Tower of Pisa is in Italy. The tower began to lean during construction as a result of an inadequate foundation on ground that was too soft to properly support the tower's weight. The tower is 56.67 m tall, and the tower leans 3.9 m beyond its base. Determine the angle of the tower's lean, relative to vertical, to the nearest tenth of a degree.

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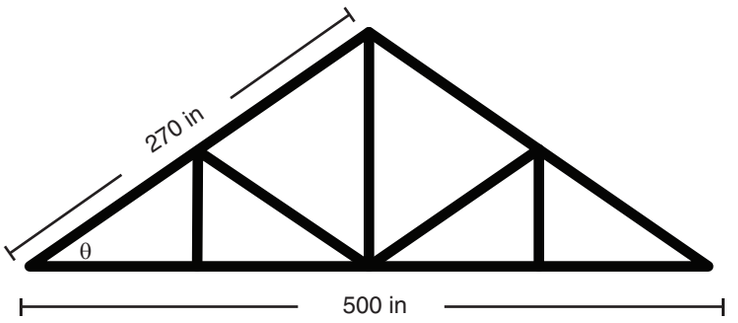
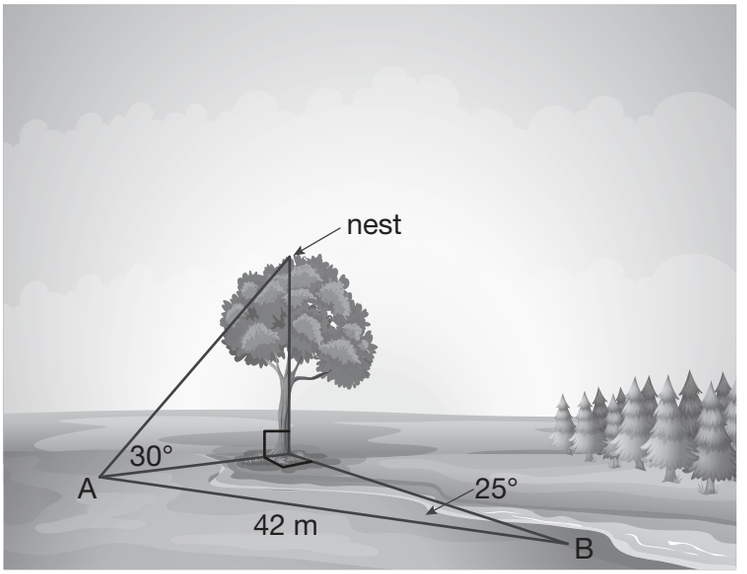
(3) 6. Mike is replacing the roof trusses on a house. The entire span of the bottom chord is 500 in, and the angled chord to the roof peak is 270 in. Determine the angle of the roofline.



(6)

7. During a nature trip, Joni, Billy, and Larry documented the location of an eagle's nest. From point A, the campers observed the eagle's nest on top of a tree, directly across a deep stream. The angle of elevation of the nest from point A is 30°. The campers walked 42 m downstream to point B, and observed that the straight line to the base of the tree makes an angle of 25° with the path on the bank of the river. How high is the eagle's nest above the ground?



/29

After all required components of *Units A* and *B* have been completed, self-assessed, and returned to you with feedback, please review the concepts covered in all four units. Contact your teacher to discuss any concepts you are unsure about. When you are ready, contact your exam supervisor to schedule an appointment to write *Exam One*.

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Revised March 2020