ALBERTA DISTANCE LEARNING CENTRE

Mathematics 10-3

MAT1793

Unit B: Right Angled Triangles

Chapter 4 Lesson 2

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 2		30	

Teacher's Comments:

_____

Teacher's Signature

REVISED March 2020

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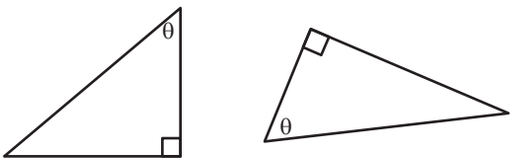
Lesson Assignment

This assignment include 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.

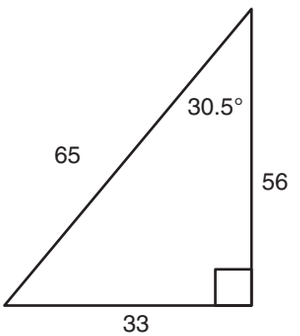
Lesson 2

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

(3) 1. On the following right triangles, label the sides using the terms opposite, adjacent, and hypotenuse.



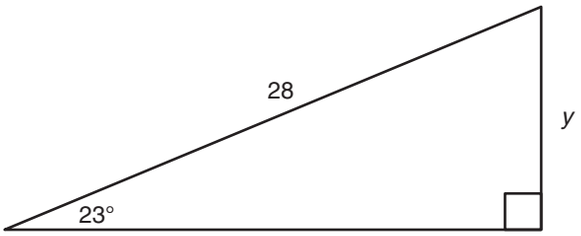
(6) 2. State and evaluate the tangent ratio, the sine ratio, and the cosine ratio for the acute angle provided in the diagram, each to the nearest thousandth.



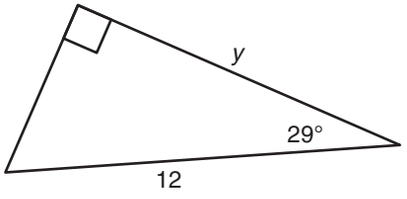
Tangent	Sine	Cosine

(3) 3. Determine the length of side y, to the nearest tenth, in each of the following triangles.

a.

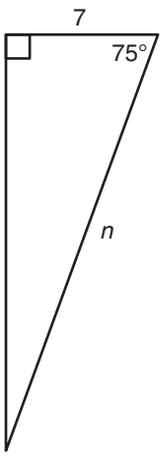


(3) b.

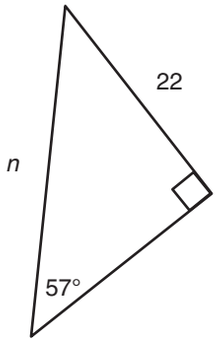


4. Determine the length of side n, to the nearest tenth, in each of the following triangles.

(3) a.

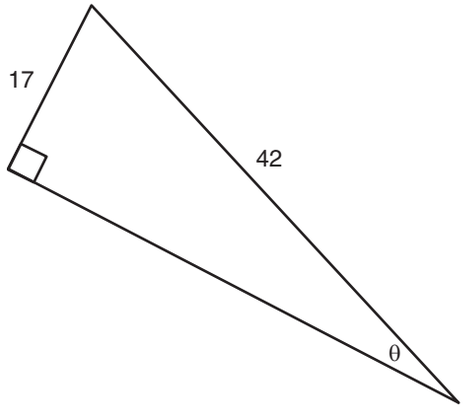


(3) b.

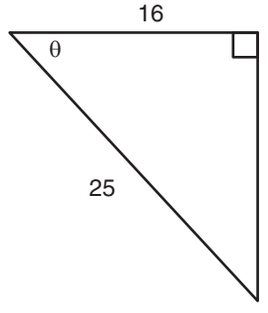


5. Determine the measure of angle θ, to the nearest degree, in each of the following triangles.

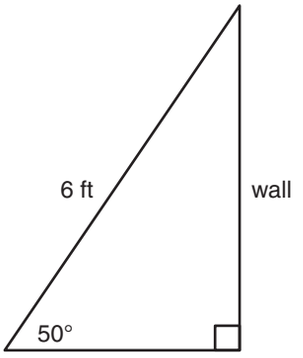
(3) a.



(3) b.



6. Ellie wants to clean the windows on her house. She places a 6 ft long ladder against the house at a 50° angle with the ground.



(3) Determine the height the ladder will reach up the wall of the house.

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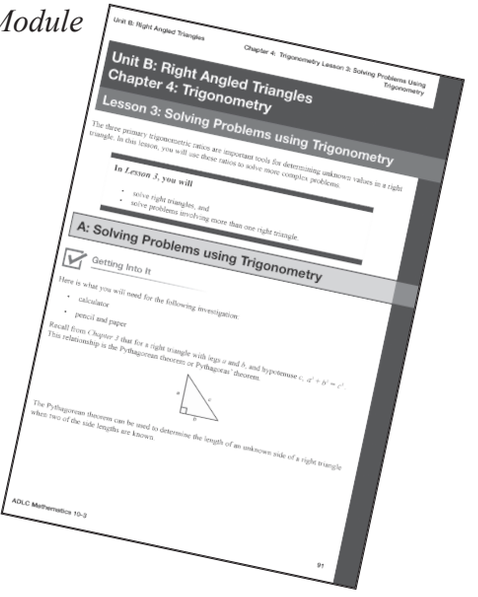
You have completed *Lesson 2 Assignment*. Please return to the *Module* and continue your exploration with *Lesson 3*.


Unit B: Right Angled Triangles

Chapter 4: Trigonometry Lesson 3: Solving Problems Using Trigonometry

Unit B: Right Angled Triangles
Chapter 4: Trigonometry
Lesson 3: Solving Problems using Trigonometry

The three primary trigonometric ratios are important tools for determining unknown values in a right triangle. In this lesson, you will use these ratios to solve more complex problems.

In *Lesson 3*, you will

- solve right triangles, and
- solve problems involving more than one right triangle.

A: Solving Problems using Trigonometry

Getting Into It

Here is what you will need for the following investigation:

- calculator
- pencil and paper

Recall from *Chapter 3* that for a right triangle with legs a and b, and hypotenuse c, $a^2 + b^2 = c^2$. This relationship is the Pythagorean theorem or Pythagoras' theorem.

The Pythagorean theorem can be used to determine the length of an unknown side of a right triangle when two of the side lengths are known.

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