ALBERTA DISTANCE LEARNING CENTRE

Mathematics 10-3

MAT1793

Unit B: Right Angled Triangles

Chapter 3 Lesson 1

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 1		31	

Teacher's Comments:

_____

Teacher's Signature

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Lesson Assignment

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

Lesson 1

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

(2) 1. For the following statements, indicate true (T) or false (F).

a. _____ Pythagoras was an Egyptian philosopher.

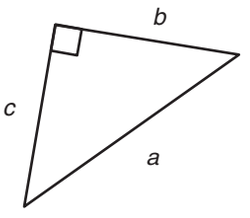
b. _____ The Pythagorean Theorem is $x^2 + y^2 = z^2$, where y is the hypotenuse.

c. _____ The Pythagorean Theorem can be used on any triangle.

d. _____ The hypotenuse is the side of the triangle across from the right triangle. It is always the longest side of a right triangle.

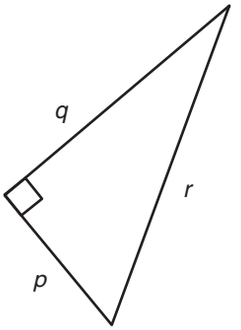
(2) 2. Write the Pythagorean Theorem for the following triangles.
Hint: Notice how the triangles are labelled.

a.



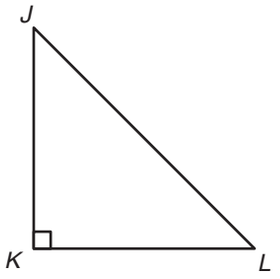
Formula:

b.



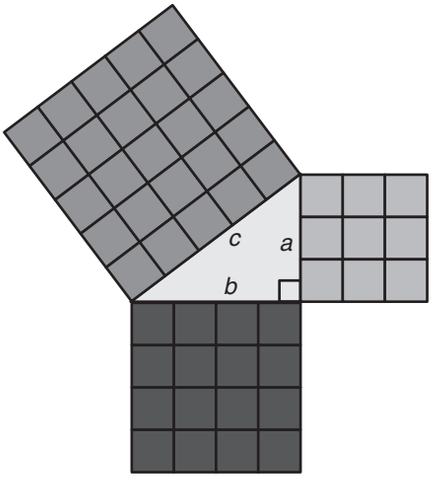
Formula:

(1.5) 3. Label the sides of the triangle shown below (using *j, k, l*).



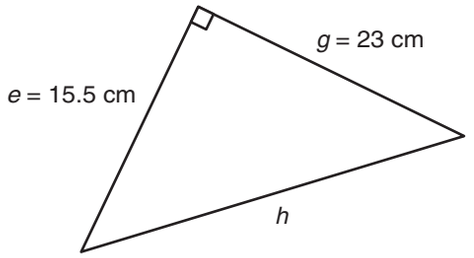
(1) 4. What information is needed to use the Pythagorean Theorem?

(2.5) 5. Explain how the diagram below supports the Pythagorean Theorem.

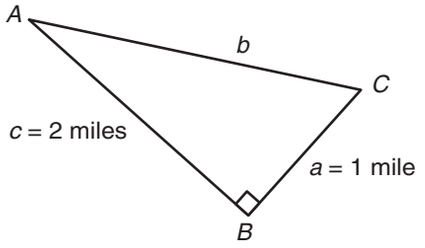


6. Determine the length of the hypotenuse of each right triangle shown.

(3) a.

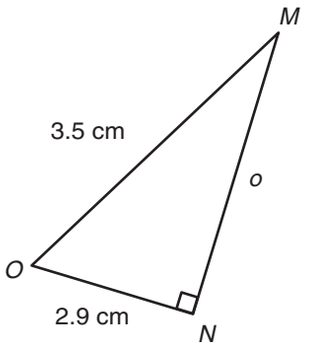


(3) b.

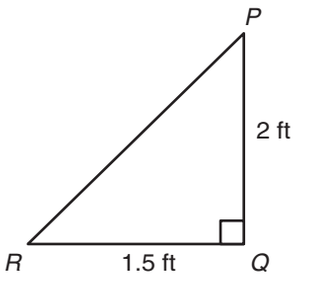


7. Determine the missing side length of each right triangle shown.

(3) a.



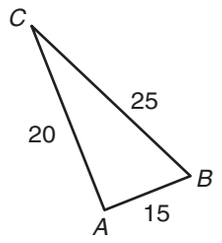
(3) b.



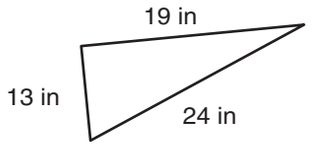
(2) 8. If the lengths of all three sides of a triangle are known, how can it be determined whether the triangle is a right triangle?

9. Determine if each of the following triangles is a right triangle by using the Pythagorean Theorem.

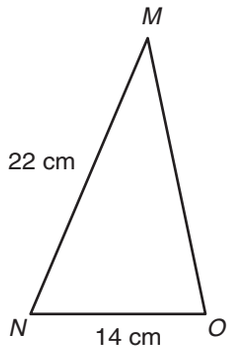
(3) a.



(3) b.

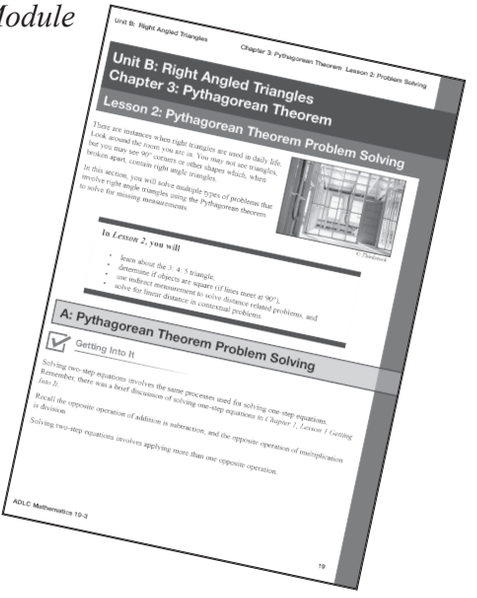


(2) 10. Is it possible to determine the unknown side length of the triangle shown? Explain.



/31

You have completed *Lesson 1 Assignment*. Please return to the *Module* and continue your exploration with *Lesson 2*.


Unit B: Right Angled Triangles
Chapter 3: Pythagorean Theorem: Lesson 2: Problem Solving

Unit B: Right Angled Triangles
Chapter 3: Pythagorean Theorem
Lesson 2: Pythagorean Theorem Problem Solving

In *Lesson 2*, you will

- learn about the 3: 4: 5 triangle,
- determine if objects are square (if lines meet at 90°),
- use indirect measurement to solve distance related problems, and
- solve for linear distance in contextual problems.

A: Pythagorean Theorem Problem Solving

Getting Into It

ADLC Mathematics 10-3

19

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