ALBERTA DISTANCE LEARNING CENTRE

Mathematics 10-3

MAT1793

Unit D: Geometry

Chapter 7 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		39	

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 7

4601 - 63 Avenue
Barrhead, Alberta Canada T7N 1P4

Printed in Canada

Alberta Distance Learning Centre website:

http://www.adlc.ca

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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 2

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

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

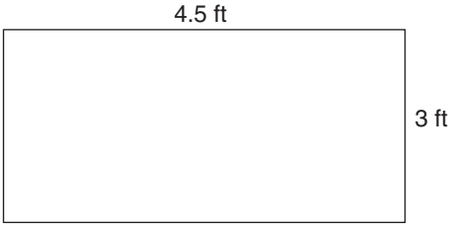
_____ a. Area is the measure of the size of a three-dimensional object.

_____ b. A common unit for area is m^3.

_____ c. If both dimensions on a rectangle are doubled, the area is four times as large as the area of the rectangle with the original dimensions.

_____ d. When calculating area, it is necessary to make sure that all measurements are in the same unit.

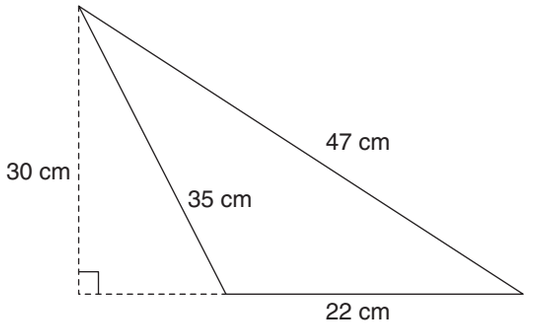
(2) 2. Determine the area of the rectangle shown.



(4) 3. Kathy wants to paint two walls in her bedroom. The walls measure 3 m by 3 m. She wants to put 2 coats of paint on each of the walls. If a can of paint covers 32.5 m^2, how many cans will Kathy need?

(2) 4. The area of a square is 53.3 cm^2. Find the side length, to the nearest tenth of a centimetre.

(2) 5. Determine the area of the triangle shown.

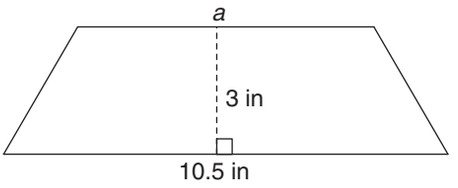


(3) 6. The area of a triangle is 12.6 in^2. Find the height of the triangle if the base is 3.5 in.

(3) 7. Determine the area of a circle with a diameter of 3.6 m.

(3) 8. A circle has an area of 81.7 cm^2. Find the diameter, to the nearest tenth of a centimetre.

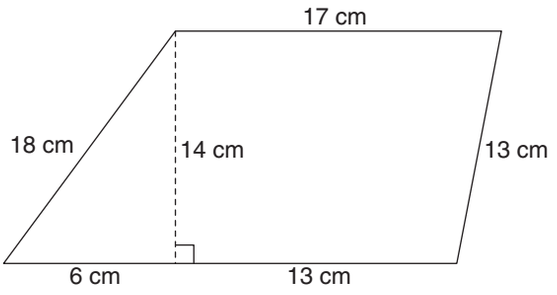
(3) 9. The area of the trapezoid shown is 26.25 in^2. Determine the missing side length, *a*.



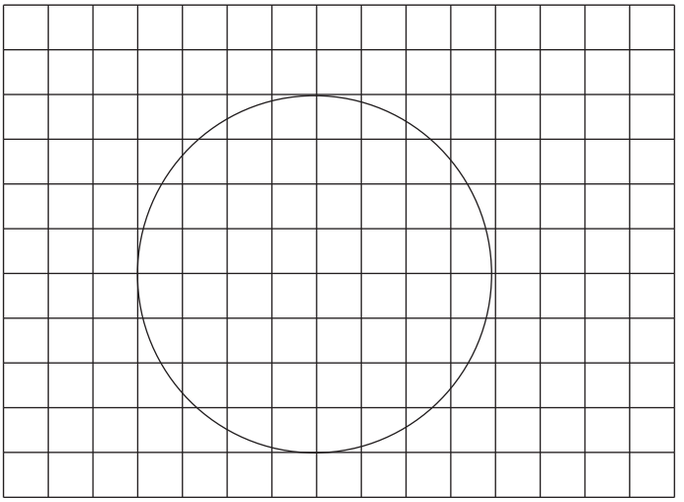
(5) 10. Mike and three friends are attending a Kiss concert. They are making a banner comprised of four parts, each presenting the individual letters of the band's name. They have already made the K, but the remaining letters need to be made. They need to calculate the area of each remaining letter so that they purchase enough material.

The "I" is 2.5 ft tall and 1 ft wide. The top of each "S" has a height of 1 ft and the bottom of each "S" has a height of 1.5 ft. Each part of each "S" is 1 ft wide. How much material will they need to make the three letters?

(5) 11. Determine the area of the composite figure shown.



12. The circle shown is drawn on 1 cm grid paper.



(2) a. Explain how to overestimate the area of the circle. What is an overestimation of the area of the circle?

(2) b. Explain how to underestimate the area of the circle. What is an under estimation of the area of the circle?

(1) c. Estimate the area of the circle, to the nearest square centimetre.

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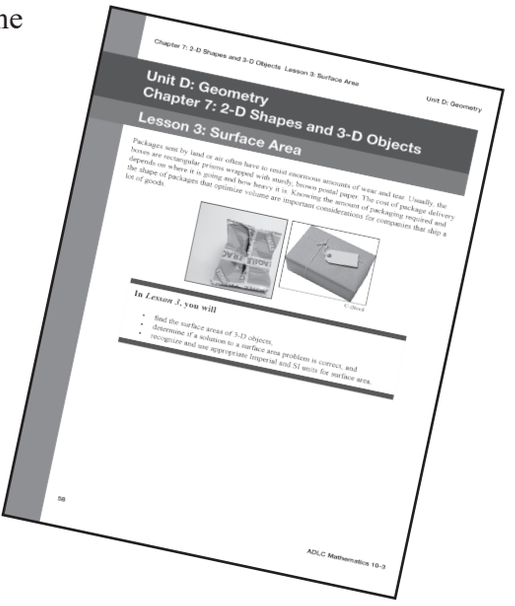
You have completed *Lesson 2 Assignment*. Please return to the *Module* and continue your exploration with *Lesson 3*.


Chapter 7: 2-D Shapes and 3-D Objects Lesson 3: Surface Area

Unit D: Geometry

Unit D: Geometry
Chapter 7: 2-D Shapes and 3-D Objects
Lesson 3: Surface Area

Packages sent by land or air often have to resist enormous amounts of wear and tear. Usually, the boxes are rectangular prisms wrapped with sturdy, brown postal paper. The cost of package delivery depends on where it is going and how heavy it is. Knowing the amount of packaging required and the shape of packages that optimize volume are important considerations for companies that ship a lot of goods.

In *Lesson 3*, you will

- find the surface areas of 3-D objects,
- determine if a solution to a surface area problem is correct, and
- recognize and use appropriate Imperial and SI units for surface area.

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Revised March 2020