ALBERTA DISTANCE LEARNING CENTRE

Mathematics 10-3

MAT1793

Course Review 1

Chapters 1 – 4

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
Chapter 1		23	
Chapter 2		19	
Chapter 3		14	
Chapter 4		19	
Course Review 1 Average			

Teacher's Comments:

_____

Teacher's Signature

REVISED March 2020

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Course Review 1

You must complete and submit this review for marking. In this review there are no multiple choice questions. There will not be multiple choice questions on the final exam. Always show work for all steps/thoughts as you work. If you encounter problems as you are working through this review, please contact your teacher for help.

Chapter 1: Income and Personal Taxes

(2) 1. George earned $39 003.00 in one year. Express his earnings as a monthly unit rate.

(3) 2. Andy works as a waiter at a new restaurant, for an hourly rate of $14.50. He gets paid time and a half for overtime hours worked. He usually works 8 hours per day, but last Thursday and Friday of last week, he worked 12 hours each day. What was Andy's gross pay last week?

Day	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Regular Hours	8	8	8	8	8	40
OT Hours				4	4	8

3. Paige is a real estate agent. The average price of a home in her area is $210 000.00. She is given the choice of working for:
   1) a salary of $9 000.00 a month, or
   2) a salary of $2 000.00 a month and a 2% commission on the sale of all property she sells.

(3) a. How many average priced houses must she sell in a month to make at least $9 000.00.

(2) b. Which method of pay would you advise Paige to take. Give 2 reasons why.

Use the following table to answer question 4.

Income Tax Table

Bracket	Tax Rate	Income level
1	25%	the first $43 561 of income
2	32%	income over $43 561 but under $87 123
3	36%	income over $87 123 but under $135 054
4	39%	income over $135 054
*First $3 500.00 is exempt from CPP and a maximum of $2 425.50/yr is contributed. Tax Rate: 4.95% *Maximum EI contribution of $913.68/yr. Tax Rate 1.88%		

4. Niko makes $12 000 in gross pay over the 9 weeks he worked in the summer. Calculate the total deductions that would be taken off his gross pay.

(2) a. Calculate Niko's CPP contribution.

(2) b. Calculate Niko's EI contribution.

(2) c. Calculate Niko's Income Tax.

(2) d. Determine Niko's net pay for the summer of work.

(5) 5. Calculate the federal income tax Athena paid if she made $145 000 last year.

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Chapter 2: Working with Money

(4) 1. Miguel went shopping for hockey skates. He found a pair at Rick's Sporting Goods for $495.00 on sale for 20% off. How much will Miguel need to pay for the skates, including 5% GST?

(2) 2. Which is the better buy per unit?
- A package of 12 chocolate bars for $9.00, or
- A case of 50 chocolate bars for $37.00

3. Convert $1500 CAD to the following currencies: (refer to Conversion Tables in Ch. 2 L3 Table)

(2) a. Mexican Pesos

(2) b. European Euro

(2) c. Chinese Yuan

(2) d. US dollar

(3) 4. Without using a calculator, estimate the approximate value in Canadian dollars of $125.00 US. **Hint**: And, be sure to show your work.

(2) 5. Jesse bought a coat while on a trip to the United States. The cost of the coat in US funds was $40. On his credit card bill, he saw that he paid $45 in Canadian funds for the coat. What was the currency exchange rate for $1.00 Canadian funds?

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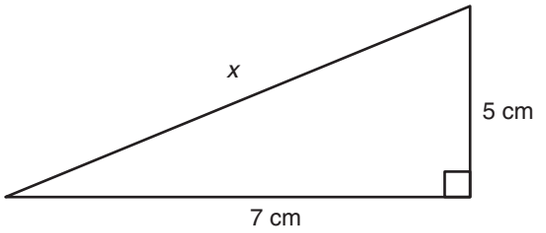
Chapter 3: Pythagorean Theorem

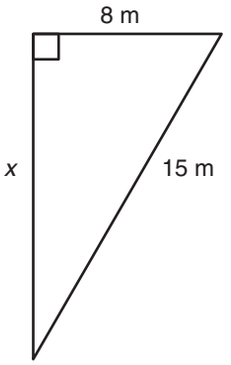
Formula
Pythagorean Theorem: $a^2 + b^2 = c^2$

Use the following diagram to answer question 1.



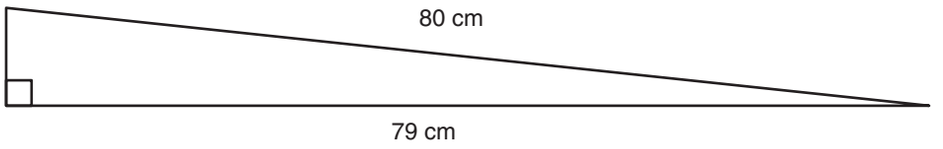
(3) 1. Calculate the length of side x, to the nearest tenth of a centimetre.

Use the following diagram to answer question 2.

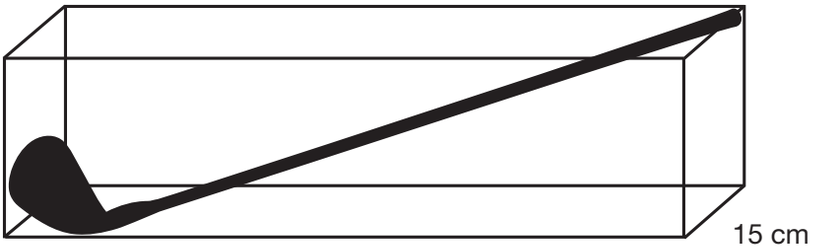


(3) 2. Calculate the length of side x, to the nearest tenth of a metre.

(3) 3. The diagram below represents a wheelchair ramp leading into a building. What is the height of the wheelchair ramp?



(5) 4. Pete ordered a golf club from the United States. His purchase is being shipped in a rectangular box. If the golf box. If the golf club is 115 cm long and the shipping box has a length of 110 cm and a width of 15 cm, how tall must the box be for the stick to fit diagonally in the box? Express your answer to the nearest centimeter.



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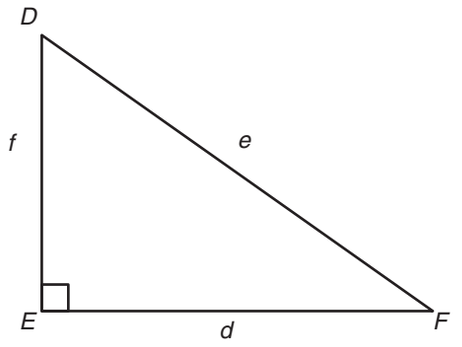
Chapter 4: Trigonometry

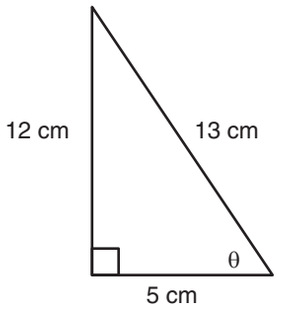
Use the diagram to answer question 1.



(3) 1. For angle *F* in the triangle above, identify each of the following sides as the hypotenuse, the opposite side, or the adjacent side:

d -
e -
f -

Use the diagram to answer question 2.



(3) 2. State the trigonometric ratios for θ in the triangle shown. Leave answers as fractions.

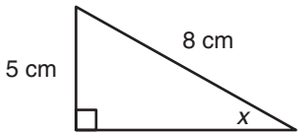
$\sin\theta =$

$\cos\theta =$

$\tan\theta =$

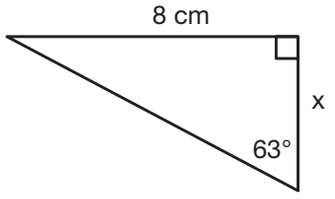
3 Find the missing angles, to the nearest degree. Be sure to include the formula as the first step.

(3)

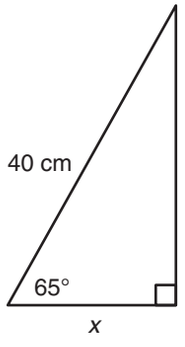


4. Calculate x to the nearest tenth of a unit. Be sure to include the formula as the first step.

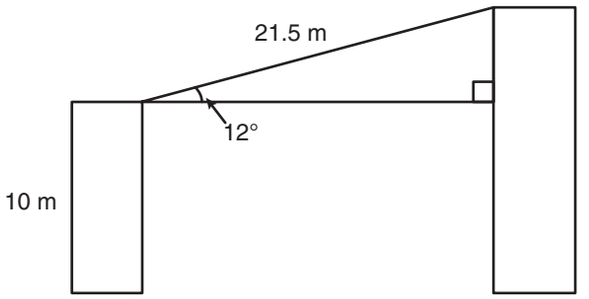
(3) a.



(3) b.



(4) 5. A tightrope walker attaches a cable to the tops of two adjacent buildings. The cable is 21.5 m long. An angle of 12° is formed between the cable and the horizontal at the top of the shorter building. The shorter building is 10 m high.
What is the height of the taller building, to the nearest tenth of a metre?



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