DO - Module 6 Amath190 Quiz

Due Feb 12 at 11:59pm **Points** 46 **Questions** 10
Available until Mar 20 at 11:59pm **Time Limit** None **Allowed Attempts** 2

Instructions

Please answer the following questions.

You have two attempts for this assignment.

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	17 minutes	37 out of 46

ⓘ Answers will be shown after your last attempt

Score for this attempt: **37** out of 46
Submitted Feb 7 at 11:55am
This attempt took 17 minutes.

Question 1 — 2 / 2 pts

Alexandria's average monthly electricity usage is 774 kWh. Using a 30 day month, what is her annual electricity usage and her average daily usage.

- ○ 9,288 kWh per year, 27.6 kWh per day
- ○ 8,514 kWh per year, 25.8 kWh per day
- ◉ 9,288 kWh per year, 25.8 kWh per day

Question 2

3 / 3 pts

Over the first 14 days of the month, Alexandria used 3.82 CCF of water. If she continues at this rate, how many CCF's of water will she use at the end of 30 days?

Round your answer to the nearest hundredth (two decimal places) of a CCF. Just type the number. Do not input any unit. Example input: 7.95

8.19

Question 3

6 / 6 pts

Alexandria used 37.8 Therms over the last month. Use the following relationship to fill in the blanks with the appropriate numbers. Only input the numbers. Round any dollar amounts to the nearest cent.

$$Total\ Natural\ Gas\ Charges = 11.72 + 0.75214 \times Number\ of\ Therms$$

$ 40.15 = $11.72 + $0.75214 x 37.8 Therms

Answer 1:

40.15

Answer 2:

37.8

Partial

Question 4

9 / 15 pts

Alexandria used 936 kWh of electricity last month. Fill in the following table and determine Alexandria's total electricity bill for the month. Round any dollar amount to the nearest penny.

Charge	Unit Rate	kWh	Cost
Base			$7.49
Tier 1 - First 600 kWh	$0.090982	600	$ 62.08
Tier 2 - Remaining kWh	$0.109943	336	$ 29.45
	Totals:	936	$ 99.02

Answer 1:

600

Answer 2:

62.08

Answer 3:

336

Answer 4:

29.45

Answer 5:

99.02

Question 5

3 / 3 pts

Alexandria used 9.64 CCF of water last month. Use the following relationship to calculate Alexandria's water bill that month. Round your answer to the nearest penny.

- If total monthly water usage **is no more** than 5 CCF:

Total Monthly Water Charges = $17.60 + $2.54 × Number of CCF used

- If total monthly electricity usage **is more** than 5 CCF and **is no more** than 10 CCF:

Total Monthly Water Charges = $17.60 + $12.70 + $3.41 × Number of CCF used over 5 CCF

- If total monthly water usage **is more** than 10 CCF:

Total Monthly Water Charges = $17.60 + $12.70 + $17.05 + $4.31 × Number of CCF used over 10 CCF

46.12

Question 6

3 / 3 pts

The following is the cost function for natural gas for the city where Greg lives. Determine Greg's natural gas bill if he used 35.13 therms in a month.

Round your answer to the nearest penny. Only input the number. Do not input any unit. Example input: 75.63

Example: 75.63

$C(t) = \$16.74 + \$0.742 \times t$

C(35.13)=?

42.81

Question 7

3 / 3 pts

The following is a piece wise function for the electricity costs in Gretel's city of residence. What would Gretel's electric bill if she used 666 kWh in a month?

Round the answer to the nearest penny if necessary. Only input the number. Do not input the unit. For example: 23.85

$$C(k) = \begin{cases} \$7.56 + \$0.0685 \times k, & 0 \leq k \leq 400 \\ \$34.96 + \$0.0962 \times (k - 400), & 400 < k \end{cases}$$

C(666)=?

60.55

Question 8

6 / 6 pts

Carina made the following is partial table of values for the cost of natural gas. Create a cost function for Carina's natural gas bill.

$C(t) = \$$ 13.68 $+\$$ 0.762 $\times t$

If necessary, round the basic charge to the nearest penny and unit rate charge to the nearest thousandth (three decimal places). Only enter the number. Do not enter the unit.

t	*C(t)*
0.0	*$13.68*
5.0	*$17.49*
10.0	*$21.30*
15.0	*$25.11*

Answer 1:

13.68

Answer 2:

0.762

Incorrect

Question 9

0 / 3 pts

The following is the cost function for natural gas for the city where Greg lives. Greg's natural gas bill last month was $64.87. How many therms did Greg use last month?

Round the answer to the nearest tenth of a therm (one decimal place). Example input: 51.2

$$C(t) = \$16.74 + \$0.742 \times t$$

64.86

Question 10

2 / 2 pts

The following is a piece wise function for the electricity costs in Gretel's city of residence. Last month Gretel's electric bill was $83.06. How many kWh did Gretel use last month? Round your answer to the nearest whole kWh.

$$C(k) = \begin{cases} \$7.56 + \$0.0685 \times k, & 0 \leq k \leq 400 \\ \$34.96 + \$0.0962 \times (k - 400), & 400 < k \end{cases}$$

- 500 kWh
- 1102 kWh
- 900 kWh
- 702 kWh

Quiz Score: **37** out of 46