

DO - Module 10 Amath190 Quiz

- Due Mar 11 at 11:59pm
- Points 36
- Questions 12
- Available until Mar 20 at 11:59pm
- Time Limit None
- Allowed Attempts 3

Instructions

Please answer the following questions.

You have 2 attempts on this assignment.

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	41 minutes	21 out of 36

ⓘ Answers will be shown after your last attempt

Score for this attempt: 21 out of 36

Submitted Mar 6 at 2:42pm

This attempt took 41 minutes.



Question 1

3 / 3 pts

Kaitlin had the following number of daily balances on her credit card account. What was the average daily balance on the account?

Round your answer to the nearest penny. Input only the number. Do not input the dollar sign. Do not use a comma. Example: 1785.43

For 4 days the balance was \$516

For 4 days the balance was \$888

For 5 days the balance was \$1,035

For 9 days the balance was \$1,264

For 9 days the balance was \$1,484



Question 2

3 / 3 pts

Last month the average daily balance on Kaitlin's credit card was \$1,261.02. If there were 30 days in that month, and her annual interest rate was 17.63 %, what is the amount of interest that she will pay on her credit card that month?

Round your answer to the nearest penny. Do not input the dollar sign. Do not use a comma.



Question 3

3 / 3 pts

Last month, Kaitlin's average daily balance on her credit card was \$1,180.55. The annual interest rate on that credit card is 16.06%. The minimum payment on that card is the interest charge ($I = \bar{B} \cdot \frac{r}{365} \cdot n$) plus 3% of the ending balance or \$25, which ever is larger. If there were 30 days in that month and the ending balance was \$1,922.43, what would be the minimum payment that Kaitlin could make?

Round your answer to the nearest penny. Input the number. Do not input the dollar sign. Do not use a comma. Example: 89.65



IncorrectQuestion 4

0 / 3 pts

Last month, Kaitlin's average daily balance on her credit card was \$2,028.68. The annual interest rate on that credit card is 16.88%. The minimum payment on that card is the interest charge ($I = \bar{B} \cdot \frac{r}{365} \cdot n$) plus 3% of the ending balance or \$25, which ever is larger. If there were 30 days in that month and the ending balance was \$2,580.53, what would be the balance on her credit card after she made that payment for that month?

Round your answer to the nearest penny. Input the number. Do not input the dollar sign. Do not use a comma. Example: 1289.65

Payment rule:

- IF $\$25 < \text{Interest Charged} + \text{Percentage of Ending Balance}$
 - THEN $\text{Payment} = \text{Interest Charged} + \text{Percentage of Ending Balance}$
- IF $\text{Interest Charged} + \text{Percentage of Ending Balance} \leq \25
 - THEN $\text{Payment} = \$25$



IncorrectQuestion 5

0 / 3 pts

Ian's monthly car payment is \$264.4. Ian pays \$156.07 every month for car insurance and he estimates he spends an average of \$26 per month on car maintenance. Ian's car gets 22 miles per gallon, gas cost Ian \$3.43 per gallon, and Ian drives an average of about 993 miles per month. Estimate how much Ian spend on his transportation costs each month.

Round your answer to the nearest whole dollar. Input only the number. Do not input the dollar sign.

Example: 371

599.73

Steps:

1. $\text{Monthly Gas Costs} = \frac{\text{Number of miles driven in a month}}{\text{Gas Milage}} \times (\text{cost per gallon of gas})$
2. $\text{Transportation Costs} = (\text{Car Payment}) + (\text{Car Insurance}) + (\text{Maintenance Costs}) + (\text{Gas Costs})$



IncorrectQuestion 6

0 / 3 pts

Yusra has a term loan that she still owes \$11,920.83. The annual interest rate on this loan is 3.52%. This month she is making payment 46. Her monthly payment is \$445.26. How much will her balance be after she makes this month's payment?

Round your answer to the nearest penny. Do no input the dollar sign. Only input the number. Do not use a comma. Example: 5698.36

11,475.61

Steps:

1. $\text{Interest on Car Loan} = (\text{Balance on Loan}) \times \frac{\text{Unit Interest Rate}}{12}$
2. $\text{Balance After Payment} = (\text{Balance before Payment}) + (\text{Interest}) - (\text{Payment})$



Incorrect Question 7

0 / 3 pts

Yvette purchased a car and she obtained a term loan with an annual interest rate of 3.34%. The balance after the 36th payment was \$6,554.35 and the balance after the 37th payment was \$6,112.2. What was Yvette's monthly payment?

Round your answer to the nearest penny. Input only the number. Do not input the dollar sign. Do not use a comma. Example 423.61

Steps:

1. $\text{Interest for 37th Payment} = (\text{Balance after 36th Payment}) \times \frac{\text{Unit interest rate}}{12}$
2. $\text{Payment} = (\text{Balance after 36th payment}) + (\text{Interest for 37th Payment}) - (\text{Balance after 37th Payment})$



Question 8

3 / 3 pts

Given the following balance table. Determine the decay rate.

Input just the number without the percent sign. Round your answer to the nearest hundredth of a percent. Example 3.42

Month	Balance
19	\$1,331.64
28	\$964.16



Question 9

3 / 3 pts

Given the following balance table. Determine the starting value.

Input just the number without the dollar sign. Round your answer to the nearest penny. Do not use a comma. Example: 1589.36

Month	Balance
16	\$1,293.13
32	\$1,032.2

1,620.01



IncorrectQuestion 10

0 / 3 pts

Flip opened a credit card account. During the first month he purchased new cloths that totaled \$1,819.88 and then put the card in a desk drawer and didn't use it again. The structure of the minimum monthly payment is the interest charge plus an additional 1.7% of the remaining balance. If Flip only makes the minimum monthly payment, how long will it take for the remaining balance to be half the amount of Flip's original purchases?

Round your answer to the nearest tenth of a month. Only type in the number. Do not type in the word "month". Example: 17.8

21

Steps:

1. $Unit\ decay\ rate = 1 - \frac{\text{percent of remaing balance}}{100}$
2. $Time\ to\ 1/2\ balance = \frac{\log(0.5)}{\log(unit\ decay\ rate)}$



Question 11

3 / 3 pts

Yesenia purchased a car for \$22,144. She obtained a 6 year term loan at an interest rate of 5%. She is making a monthly payment of \$313.

Using the following balance function to calculate the balance owed after the month 41 payment.

Round your answer to the nearest penny. Only input the number. Do not input the dollar sign. Do not use a comma. Example: 4536.21

$$B(t) = B_0 \cdot \left(1 + \frac{r}{12}\right)^{12 \cdot t} - M \cdot \left(\frac{\left(1 + \frac{r}{12}\right)^{12 \cdot t} - 1}{\left(\frac{r}{12}\right)} \right)$$



Question 12

3 / 3 pts

Yak purchased a car for \$22,688. He obtained a 7 year term loan at an interest rate of 4.64%.

Using the following function to calculate his monthly payment.

$$M = \frac{B_0 \cdot \left(\frac{r}{12}\right) \cdot \left(1 + \frac{r}{12}\right)^{12 \cdot t}}{\left(1 + \frac{r}{12}\right)^{12 \cdot t} - 1}$$

Round your answer to the nearest penny. Only input the number. Do not input the dollar sign. Do not use a comma. Example: 536.21

Quiz Score: 21 out of 36