Amath190 Exam 3

- Due Mar 20 at 11:59pm
- Points 100
- Questions 10
- Available Mar 18 at 11:59pm - Mar 20 at 11:59pm
- Time Limit 120 Minutes
- Allowed Attempts 2

Instructions

Please answer the following questions.

You have 120 minutes to complete this assignment.

You have 2 attempts on this exam.

Here are the conditions for this test and on your honor you will following these conditions:

- You will work alone on this test.
- You will not seek any help from another person or website for this test
- You can use a calculator
- You can use one page of handwritten notes for this test (both sides).

Take the Quiz Again

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	72 minutes	60 out of 100

Score for this attempt: 60 out of 100
Submitted Mar 19 at 11:24am
This attempt took 72 minutes.

Question 1
10 / 10 pts

Assuming there were no buying/selling fees, what would be the total capital gain if 124 shares of DCBA stock were purchased for $33.65 per share and all 124 shares were sold for $43.24 per share six months later?

Round your answer to the nearest penny. Input just the number. Do not input the dollar sign. Do not use a comma. Example: 1021.57

Correct!

1,189.16

Correct Answer
1,189.16 margin of error +/- 0.01

Question 2
10 / 10 pts

Zoe was comparing the variability of three of her stocks. Over the last month EAC stock had a mean price of $31.08 per share with a standard deviation of $1.8, while FJF stock had a mean price of $36.12 per share with a standard deviation of $1.16, and QSR stock had a mean price of $47.31 per share with a standard deviation of $1.65. Out of these three stocks, what was the smallest coefficient of variation?

Round your answer to a hundredth of a percent. Input just the number. Do not input the percent sign. Do not use a comma. Example 4.35

Correct!

3.21

Correct Answer
3.21 margin of error +/- 0.01

Question 3
0 / 10 pts

The following table represents the MPY closing sock price over a period of 9 trading days.

Trading Day	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
Stock Price	$40.62	$42.07	$41.7	$43.34	$44.53	$40.13	$41.99	$43.83	$44.54

What is the 2nd 6-day simple moving average?

Round your answer to nearest penny. Input just the number. Do not input the dollar sign. Do not use a comma. Example 56.98

You Answered

43.06

Correct Answer
42.29 margin of error +/- 0.01

Question 4
10 / 10 pts

The following information is from an annually **compounded interest** account.

Years, t	B(t)
0	$867
17	$1,326.39

What is the annual interest rate, r for this account?

Round your answer to the nearest hundredth of a percent. Do not input the percent sign. Example 2.56

Correct!

2.53

Correct Answer
2.53 margin of error +/- 0.02

Question 5
10 / 10 pts

Barry open a compound interest savings account and his **initial deposit was $1,174**. The account pays **3.2% annual interest** and is **compounded annually. H**ow many years it would take for the balance to be $1,805?

Round your answer to the nearest hundredth of a year. Example: 23.13

The following is the balance function for compound interest account where:

- *P* is the initial deposit,
- r is the annual interest rate,
- n is the number of compounding times per year,
- t is the number of years.

$$B(t) = P \cdot \left(1 + \frac{r}{n}\right)^{n \cdot t}$$

Correct!

13.66

Correct Answer
13.66

Question 6
10 / 10 pts

Barca opened up a **compounded daily** interest account that paid 2.53**% annual interest**.

What is the total percent yield for this account after 9 years.

Round your answer to the nearest tenth of a percent. Do not input the percent sign. Example: 15.2

The following is the % Yield function where:

- r is the annual interest rate,
- n is the number of compounding times per year
- t is the number of years

$$\%Yield = \left(1 + \frac{r}{n}\right)^{n \cdot t} - 1$$

Correct!

25.57

Correct Answer
25.6 margin of error +/- 0.1

Question 7
0 / 10 pts

Yvette took out a term loan with an annual interest rate of 4.02% to pay for a car. The beginning balance for a particular month was $6,521.25 and the balance after that month's payment was $6,155.4. 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

You Answered

365.85

Correct Answer
387.7 margin of error +/- 0.02

Question 8
0 / 10 pts

Flip opened a credit card account. During the first month he purchased a new bed, couch, and stereo, 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 2.3% of the remaining balance. If Flip only makes the minimum monthly payment, how many months 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

Use the following formula to help you answer this question.

$$Balance\ Half-time=\frac{\log(0.5)}{\log(b)}$$

where *b* is the decay factor.

You Answered

12

Correct Answer

29.8 margin of error +/- 0.01

Question 9

10 / 10 pts

Yesenia purchased a car for $16,391. She obtained a term loan at an interest rate of 3%. She is making a monthly payment of $243.

Using the following balance function to calculate the balance owed after 3 years of making payments.

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

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

Correct!

8,790.8

Correct Answer

8,790.8 margin of error +/- 0.02

Question 10

0 / 10 pts

Last month, Kaitlin's average daily balance on her credit card was $1,558.85. The annual interest rate on that credit card is 16.7%. The minimum payment on that card is the interest charge ($I = \overline{B} \cdot \frac{r}{365} \cdot n$) plus 3.5% of the ending balance or $25, which ever is larger. If there were 31 days in that month and the ending balance was $1,852.72, 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

You Answered

81.86

Correct Answer

86.96 margin of error +/- 0.02

Quiz Score: 60 out of 100