Instructions
Here are some review questions from Sections 5.1, 5.2, 5.3, 5.4, and 5.6... Please work some example problems and bring suggestions to class as to which problems you would like to see on the exam. I would like to include 1 question from each section for a total of 5 questions on the exam. Again, if you have any questions, please email me: Joshua.Patterson@tamuc.edu

1. Find the number of days.
   (a) April 1 to July 10 of the same year
      100 days
   (b) April 1 through July 10 of the same year
      101 days

2. Find the simple interest $I$ of the given loan amount. (Round your answer to the nearest cent.)
   $2,000 borrowed at 7% for four years
   $I = \$560.00$

3. Find the future value $FV$ of the given present value. (Round your answer to the nearest cent.)
   Present value of $3,660 at 2\frac{3}{4}$% for six years
   $FV = \$4263.90$

4. Find the number of periods that corresponds to the given time span, if a period is a quarter of a year, a month, and a day.
   (Ignore leap years.)
   20 years
   (a) a quarter of a year
      80 quarters
   (b) a month
      240 months
   (c) a day
      7,300 days

5. Consider the following investment. (Round your answers to the nearest cent.)
   $2,000 at 5% compounded annually for 15 years
(a) Find the future value of the given amount.
$ \text{4,157.86}

(b) Interpret the future value of the given amount.
After 15 years, the investment is worth $ \text{4,157.86}.

6. Consider the following nominal rate. (Round your answers to two decimal places.)
5% compounded monthly
(a) Find the annual yield corresponding to the given nominal rate.
\text{5.12}\% 
(b) Interpret the annual yield corresponding to the given nominal rate.
The given compound rate is equivalent to \text{5.12}\% simple interest.

7. Find the future value of the given annuity. (Round your answer to the nearest cent.)
ordinary annuity, $120 monthly payment, \(\frac{3}{4}\)\% interest, one year
$ \text{1485.40}

8. Find the future value of the given annuity. (Round your answer to the nearest cent.)
ordinary annuity, $155 monthly payment, \(\frac{7}{8}\)\% interest, eleven years
$ \text{30,924.28}

9. Art Dull recently set up a TDA to save for his retirement. He arranged to have $80 taken out of each of his biweekly checks; it will earn \(\frac{9}{8}\)\% interest. He just had his 26th birthday, and his ordinary annuity comes to term when he is 65. Find the following. (Round your answers to the nearest cent.)
(a) The future value of the account
$ \text{772,760.36}
(b) Art's total contribution to the account
$ \text{81,120.00}
(c) The total interest
$ \text{691,640.36}

10. The following loan is a simple interest amortized loan with monthly payments. (Round your answers to the nearest cent.)
$6000, \(\frac{3}{2}\)\%, 4 years
(a) Find the monthly payment.
$ \text{147.89}
11. Question Details

The following loan is a simple interest amortized loan with monthly payments. (Round your answer to the nearest cent.)

$170,000, 9\frac{1}{2}\%$, 30 years

(a) Find the monthly payment.
$1,429.45$

(b) Find the total interest.
$344,602.77$

12. Question Details

Wade Ellis buys a new car for $16,838.18. He puts 10% down and obtains a simple interest amortized loan for the rest at 11\frac{1}{2}\% interest for four years. (Round your answers to the nearest cent.)

(a) Find his monthly payment.
$395.36$

(b) Find the total interest.
$3823.03$

(c) Prepare an amortization schedule for the first two months of the loan.

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<th>Payment Number</th>
<th>Principal Portion</th>
<th>Interest Portion</th>
<th>Total Payment</th>
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<tr>
<td>2</td>
<td>$252.53</td>
<td>$142.83</td>
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13. Question Details

Cheryl Wilcox is planning for her retirement, so she is setting up a payout annuity with her bank. She wishes to receive a payout of $1,900 per month for twenty years.

(a) How much money must she deposit if her money earns 8\% interest compounded monthly? (Round your answer to the nearest cent.)
$227,153.15$

(b) Find the total amount that Cheryl will receive from her payout annuity.
$456,000$

14. Question Details

Dean Gooch is planning for his retirement, so he is setting up a payout annuity with his bank. He wishes to receive a payout of $1,700 per month for twenty-five years.

(a) How much money must he deposit if his money earns 7.3\% interest compounded monthly? (Round your answer to the nearest cent.)
$234,149.68$
Cheryl Wilcox is planning for her retirement, so she is setting up a payout annuity with her bank. She wishes to receive a payout of $1,100 per month for twenty years. (Round your answers to the nearest cent.)

(a) How large a monthly payment must Cheryl Wilcox make if she saves for her payout annuity with an ordinary annuity, which she sets up thirty years before her retirement? (The two annuities pay the same interest rate of 8% compounded monthly.)

$88.24

(b) Find the total amount that Cheryl will pay into her ordinary annuity.

$31,766.40

Compare it with the total amount that she will receive from her payout annuity.

Cheryl receives $232,233.60 more than she paid.