1. (5 pts) Circle which one of the following formats most closely matches what Dr. Sherry wants in the subject line of all my emails to her.
   a. Joe
   b. Missed class
   c. D. J. 131
   d. Heb
   e. Caitlen Smith 131-505
   f. Online homework question
   g. Andersen 504
   h. 131
   i. Dr. Sherry
   j. When's the test?
   k. help, i'm sick
   l. Math 131-505
   m. office hour help
   n. section 506
   o. Chapter 4 notes
   p. 131-504

2. (25 pts) Write "true" or "false" in each blank. Do not abbreviate your answer.
   a. An absence for a non-acute medical service or regular check-up does not constitute an excused absence. For injury or illness too severe or contagious to attend class, I must provide confirmation of my a visit to a health care professional affirming date and time of visit.
   True
   b. To be excused I must notify Dr. Sherry (acknowledged email or written) prior to date of absence if such notification is feasible. Consistent with Texas A&M Student Rules, students are required to notify their instructor by the end of the second working day after missing an examination or assignment; otherwise, they forfeit their rights to a make-up.
   True
   c. My instructor strongly recommends working the week-in-review (WIR) problems before attending WIR, going to help sessions and office hours, regularly attending class, doing my suggested text problems and required online homework, and keeping up with the material. My instructor cares and she wants me to learn the material.
   True
   d. For all my Math 131 classes, it is my responsibility to have my TI-83/84 or TI 83/84 Plus graphing calculator with me. No sharing of calculators during exams or quizzes.
   True
   e. It is my responsibility to check my TAMU email each day, and to read and follow directions given in my emails from my instructors and from the university.
   True
3. (25 pts) Give and simplify the difference quotient for \( f(x) = 3x^2 - 5 \).

\[
\frac{f(x+h) - f(x)}{h} = \frac{3(x+h)^2 - 5 - (3x^2 - 5)}{h} = \frac{3(x^2 + 2hx + h^2) - 5 - 3x^2 + 5}{h} = \frac{3x^2 + 6hx + 3h^2 - 5 - 3x^2 + 5}{h} = \frac{h(6x + 3h)}{h} = 6x + 3h
\]

4. (20 pts) Example: In 1990, a new type of robotic machine used for surgery came on the market. The table below gives the number of surgeries, in thousands, performed using this new robotic machine in certain years. Remember to give the appropriate calculator commands.

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

a. Find an appropriate model for this data where \( x \) is the number of years after 1990. In your model, round your coefficients to 1 decimal place.

\[ \text{LinReg} \ L_1, L_2, Y_1 \]

\[ f(x) = 0.3x + 1.1 \]

thousands of surgeries for \( x \) years after 1990

b. Using the unrounded model, predict the whole number of surgeries using this robotic machine in the year 2010.

\[ Y_1 \ (2010 - 1990) = 7.15 \]

\[ Y_1 \ (20) = 7.15 \]

In 2010 predict

7150 surgeries.

NAME: __________________________

MATH 150 SECTION (Circle one):

504 505 506

Circle First Letter of Last Name:

A-D  E-K  L-R  S-Z