Name: ________________________________

Use Word or WordPerfect to recreate the following documents. Each article is worth 10 points and can be printed and given to the instructor or emailed to the instructor. If you print it out, you will be able to use it in your notebook on the open notebook final exam.

Insert your name before the section title.

Do not create the watermark $f(x) = \int_{-\infty}^{x} \frac{1}{\sqrt{2\pi}} e^{-\frac{1}{2} \left( \frac{t-\mu}{\sigma} \right)^2} dt$ on your document. This is in there so you don’t just photocopy the document and give it back to me.

For expressions or equations, you should use the equation editor in Word or WordPerfect. The documents were created using a 14 pt Times New Roman font with standard 1” margins. The equations were created using 16 pt as the standard font size to make things readable.

For individual symbols ($\theta$, $\alpha$, etc), you can insert symbols. In Word, use “Insert / Symbol” and choose the Symbol font. For WordPerfect, use Ctrl-W and choose the Greek set.

The due date for each of these documents is the day after the exam for that chapter. While the material is not due until after the exam, it is recommended that you create it ahead of time because the material will help you review for the exam.
Chapter 3

\[ \begin{align*}
I &= PRT \\
A &= P \left(1 + i\right)^n \\
FV &= PMT \left( \frac{\left(1 + i\right)^n - 1}{i} \right) \\
PMT &= PV \left( \frac{i}{1 - \left(1 + i\right)^{-n}} \right)
\end{align*} \]

Chapter 4

\[ \begin{bmatrix} 2 & 1 \\ 3 & 2 \end{bmatrix} + \begin{bmatrix} 5 & -2 \\ 1 & 3 \end{bmatrix} = \begin{bmatrix} 7 & -1 \\ 4 & 5 \end{bmatrix} \]

\[ \begin{bmatrix} 2 & 1 & 3 \\ -1 & 2 & 4 \\ 5 & 1 & -6 \end{bmatrix} = -51 \]

\[ \begin{bmatrix} 1 & 0 & 0 & 2 \\ 0 & 1 & 0 & 4 \\ 0 & 0 & 1 & -3 \end{bmatrix} \]

\[ AX = B \Rightarrow X = A^{-1}B \]

\[ X = (I - M)^{-1}D \]
Chapter 5

Hint, place following two systems into a matrix without brackets. Define the matrix row spacing to be 100% and the matrix column spacing to be 50%.

\[
\begin{align*}
3x + 4y & \leq 36 \\
3x + 2y & \leq 30 \\
x & \geq 0 \\
y & \geq 0
\end{align*}
\]

\[
\begin{align*}
x_1 + x_2 + x_3 + s_1 &= 100 \\
40x_1 + 20x_2 + 30x_3 + s_2 &= 3200 \\
x_1 + 2x_2 + x_3 + s_3 &= 160 \\
-100x_1 - 300x_2 - 200x_3 + P &= 0
\end{align*}
\]

Be sure to reset the matrix row spacing to 150% and the matrix column spacing to 100%.

\[
f(x) = \int \frac{1}{\sqrt{2\pi}} e^{-\frac{1}{2} \left( \frac{t-\mu}{\sigma} \right)^2} dt
\]
Chapters 6 - 7

\[ P(A \cup B) = P(A) + P(B) - P(A \cap B) \]

\[ P(A \cap B) = P(A)P(B | A) \]

\[ P(A | B) = \frac{P(A \cap B)}{P(B)} \]

\[ P(E') = 1 - P(E) \]

\[ E(x) = \sum_{k=1}^{n} x_k p(x_k) \]

\[ \bar{x} = \frac{1}{n} \sum_{k=1}^{n} x_k \]

\[ s^2 = \frac{1}{n-1} \sum_{k=1}^{n} (x_k - \bar{x})^2 \]

\[ \sigma^2 = \frac{1}{n} \sum_{k=1}^{n} (x_k - \mu)^2 \]

\[ P(x) = \binom{n}{x} p^x q^{n-x}; \quad p + q = 1 \]

\[ z = \frac{x - \mu}{\sigma} \]
Chapters 8-9

\[
M = \begin{bmatrix} a & b \\ c & d \end{bmatrix}
\]

\[
D = (a + d) - (b + c)
\]

\[
P^* = \begin{bmatrix} \frac{d - c}{D} & \frac{a - b}{D} \\ \frac{d - b}{D} & \frac{a - c}{D} \end{bmatrix}
\]

\[
Q^* = \begin{bmatrix} \frac{d - b}{D} \\ \frac{a - c}{D} \end{bmatrix}
\]

Notice the next series is aligned at the = and has 100% row spacing instead of 150% row spacing.

\[
E(P^*, Q) = P^*MQ \geq v
\]

\[
E(P, Q^*) = PMQ^* \leq v
\]

\[
E(P^*, Q^*) = P^*MQ^* = v
\]

\[
S_1 = S_0P
\]

\[
S_2 = S_1P = S_0P^2
\]

\[
S_3 = S_2P = S_0P^3
\]

\[
P = \begin{bmatrix} I & 0 \\ R & Q \end{bmatrix}
\]

\[
F = (I - Q)^{-1}
\]