

With the exception of a dictionary (English or English/Other) the exam is closed book. The exam will require the use of a lab computer. Your solution must be printed on paper and turned-in. A photo ID is required to turn-in the exam. The only computer applications allowed to be open and/or used during the exam are Microsoft Word, and the off-line, Microsoft Word help systems. Students may NOT use the Internet including Internet Explorer, Firefox, and on-line Help. Cell phones must be turned off. Students cannot answer a cell phone in class nor can they exit the room to answer a cell phone during the exam. A Student may NOT leave the room (even to use the restroom) for any reason during the exam until that student has turned in the exam. Once an exam is turned in, no further work may be done on it. Time limit: 50 minutes

Part 1: Paragraphs, lists, and footnotes [50 points]:

Perform each of the following tasks in Microsoft Word using the last page as a guide. **NOTE:** *Do not worry about slight differences between your paper and the guide. You will not be marked down for small typos such as misspelling a word. Follow the instructions below to receive full marks.*

- a) **[5 points]** Use Microsoft Word to format an 8.5x11 inch page with portrait orientation. Set the margins to 0.5 inches on all four sides.
- b) **[5 points]** At the top of the page, enter your first name and last name in **bold, 16-point, Comic Sans MS** where it says **[Your First and Last Name Here]** in the page guide. Do not include the square brackets []. Your name must be left aligned.
- c) **[3 points]** Skip one line after your name and enter the paragraph beginning with **RAID** in **14 point Times New Roman**. The **right margin** of the first paragraph must be at the right margin of the page. The first word of the paragraph must be **bold** as shown in the guide.
- d) **[6 points]** Enter a **footnote** at the end of the first paragraph. The footnote number must appear at the end of the paragraph and near the bottom of the page as shown in the guide. At the bottom of the page, there must be a short thin line above the footnote. The footnote text must be **10-point Times New Roman** and the web address **underlined** as shown in the guide.
- e) **[3 points]** Enter the paragraphs on “**Mirroring**”, “**Striping**”, and “**Parity**” in **14-point Times New Roman**. The first word of each of these paragraphs must be **bold** as shown in the guide.
- f) **[5 points]** The paragraphs on “**Mirroring**”, “**Striping**”, and “**Parity**” must be **Bulleted** with the half darkened arrow bullets.
- g) The bulleted paragraphs must be formatted with a **hanging indent** such that:
 - **[3 points]** The **bullets start 1 inch** from the **left page margin**.
 - **[3 points]** The **first line of text starts ¼ inch** from the **bullet**.
 - **[3 points]** Each **subsequent line** in the paragraphs starts **2 inches** from the **left margin**.
- h) **[5 points]** The **right margin** of all but the first paragraph in this section must be **1½ inches** from the page’s right margin.
- i) **[6 points]** The list of two advantages of mirroring must be a numbered list in the format: **a), b)**, with the **numbers starting 2¼ inches** from the left page margin and the **text** of all lines of the list starting **2½ inches** from the left margin.
- j) **[3 points]** All text in this section (except your name) must be **Justified**.

Part 2: Tables [40 points]:

- a) [1 point] Leave two blank lines after part 1, and insert the 7 row, 3 column table as shown in the guide.
- b) [3 points] All three columns of the first row must be merged into a single cell containing the text “**Standard RAID levels**” in **centered, bold, 16-point Arial** font.
- c) [4 points] The **second row** of the table must be in **bold, italic, 12-point Arial** font. It must be **centered** both **vertically** and **horizontally**, and as must contain the text shown in the guide.
- d) [4 points] Rows 3 through 7 of the table must be in **normal, 12-point Times New Roman** font and contain the text shown in the guide.
- e) [1 point] The **first two columns** of rows 3 through 7 must be **left aligned**.
- f) [1 point] The **third column** of rows 3 through 7 must be **centered**.
- g) [3 points] The **first column** of the table must be exactly **1.0 inches wide**.
- h) [3 points] The **second column** of the table must be exactly **3.0 inches wide**.
- i) [3 points] The **third column** of the table must be exactly **1.0 inch wide**.
- j) [5 points] The first two rows of the table must have a background **shading** of light gray (25%). The other rows of the table must have no background shading.
- k) [4 points] The table’s outside border must be a double line (one thick and one thin), and must have a **3-point** weight as shown in the guide.
- l) [4 points] The table’s inside borders must be a solid line of $\frac{1}{2}$ **point** weight.
- m) [4 points] The table’s border between the second and third row must be a **triple line** of $2\frac{1}{4}$ -**point** weight as shown in the guide.

Part 3: Special Characters [10 points]:

- a) [5 points] Skip two lines after table and enter the sentence about copyright in **normal, 16-point Times New Roman** font with **left aligned** paragraph formatting as shown in the guide. The two forms of the copyright symbol must appear as shown in the guide.
- b) [5 points] On the line after the copyright sentence, enter the sentence about the Greek letter **16-point Times New Roman** font with **left aligned** paragraph formatting as shown in the guide. The Greek letter must appear as shown in the guide.

[Your First and Last Name Here]

RAID is an acronym for Redundant Arrays of Inexpensive Disks. RAID is an umbrella term for computer data storage schemes that divide and replicate data among multiple hard disk drives for greater performance and reliability. Key concepts: ¹

- **Mirroring** is a technique in which data written to disk is automatically copied and written on two or more separate disks.
 - a) Mirroring provides an additional copy of the data in case of hardware failure.
 - b) Mirroring can allow each disk to be read separately. This can significantly improve read performance.
- **Striping** is the splitting of data across more than one disk.
- **Parity** is a single, binary bit added to each small block of data to indicate whether the block contains an even or odd number of bits with a value of 1.

Standard RAID levels		
Level	Description	Minimum # of Disks
RAID 0	Striped without parity. Provides improved performance, but no fault tolerance.	2
RAID 1	Mirrored without parity. Provides fault tolerance and increased read performance.	2
RAID 3	Striped with dedicated parity. Provides improved performance and fault tolerance.	3
RAID 4	Identical to RAID 3 but does block-level striping instead of byte-level striping.	3
RAID 5	Striped with distributed parity.	3

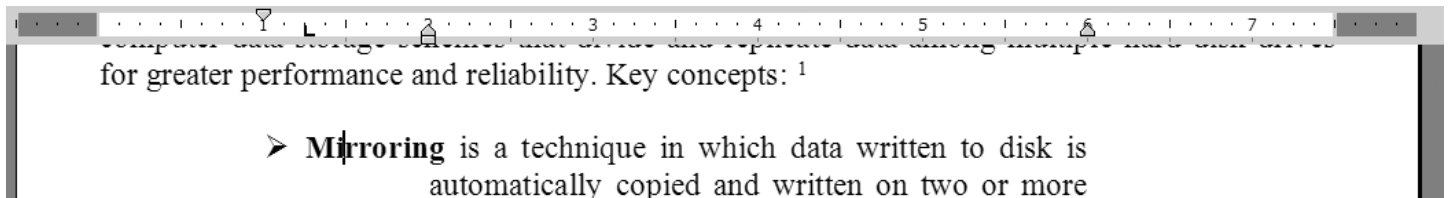
The copyright symbol can be written as (c) or as ©.
The capital Greek letter Σ (sigma) is used for summation.

¹ Wikipedia, <http://en.wikipedia.org/wiki/RAID>

Discussion of Solutions:

The part of this that gives most students trouble is getting all of the columns lined up - both in the paragraphs of nested lists and in the table.

To help with lining up columns, from the “View” menu, make sure the “Ruler” option is selected. The ruler has sliders to control the right and left margins, intents, tabs, and hanging indents. For example, the screen capture below shows the correct ruler settings for the paragraph beginning with “Mirroring”.



DO NOT attempt to line up the columns by using spaces! Since Times New Roman is a proportional font, you will not be able to get the lines perfectly even by using spaces. The grader will be able to see this and you will lose points.

Greek letters and special mathematics symbols can be found in the font named Symbol. To find and insert these symbols, select the “Insert” menu and then select the “Symbol...” command. Then, from the “Symbol” dialog box, select the font named “Symbol”.

Getting precise spacing in tables can be very tricky. First, when you create your table, make sure to check the “AutoFit to contents” box is checked. Then, set a specific column width, select the column, then open the “Table Properties” dialog. Select the “Column” tab, check the “Preferred Width” box, and enter the desired width of the selected column.

A common error is to see tables like the one below with students being frustrated that the text “Striped without Parity...” does not fill all of the space in the column. The reason for this problem becomes clear if you look at the ruler which shows the margins for that column.

RAID 0	Striped without parity. Provides improved performance, but	2
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The table with the correct margin settings for the middle column is shown below. Note: the ruler is only showing the margin settings of the middle column because that is the column where the cursor is located.

RAID 0	Striped without parity. Provides improved performance, but no fault tolerance.	2
RAID 1	Mirrored without parity. Provides fault	2