

## Some Basic Rules of Mathematical Writing

Here you are given many suggestions about how to write a test paper or homework. The negative numbers in parentheses indicate the the severity of each error.

WA. (-10) Print first name: \_\_\_\_\_ Print last name: \_\_\_\_\_

Printing means writing in the same style as you see words are written here, also called block letter writing. Print in the space provided. Printing in capital letters is preferred. Imagine you are applying for a license at DMV. You want no spelling errors or misunderstandings. Your writing has to be very clear and where it is expected.

Signing means using cursive writing (in flowing strokes where letters are joined together) when you sign your name; as you may be required on a test or receipt or a check. This is essentially an ancient style password. Others cannot imitate your signature easily.

Example: I pledge my honor that I did not receive or give help during this test. I have read and accepted the course policy and academic integrity policy according to Student Handbook and course policy. All sources that I have used are properly cited.

WB. (-100) Sign your name: \_\_\_\_\_

Please make sure that the following common mathematical or writing mistakes do not occur on your tests.

WC. (-100) Putting an equal sign between expressions that are obviously not equal.

For example writing  $x^2 = 100 = 10$  is incorrect, the correct form is  $x^2 = 100$ ,  $x = \pm 10$ .

WD. (-20) Not putting an equal sign between the two sides of an equation. For example writing  $(x + 3)^2 = x^2 + 6x + 9$  is incorrect, the correct form is  $(x + 3)^2 = x^2 + 6x + 9$ .

WE. (-10) Not writing in complete sentences, or writing only one side of an equation. For example  $x^2 - 5x + 6 = 0$ ,  $x = 2, 3$  is incorrect. The correct style is  $x^2 - 5x + 6 = 0$ ,  $x = 2$ , or  $x = 3$ . The asymptotes of  $y = (3x - 2)/(x - 5)$  are not 3, 5, they are  $y = 3$ , and  $x = 5$ .

WF. (-10) Not writing in a linear fashion. Start writing from the left side of the page. Write in a straight line. Separate equations on the same line by a comma. If you are performing an activity that requires a block of space, such as side calculations, multiplying, dividing, graphing, etc. then allocate room on the right side of page for the activity. Trivial calculations are best left to a scratch paper.

WG. (-10) Misaligned equations. Put the equal sign in front of the main fraction line. Usually  $\frac{x=3}{5}$  is incorrect. The correct form is  $x = \frac{3}{5}$ .

WH. (-10) Incorrect size for radical or fraction line. Note  $\sqrt{\frac{3}{5}}$  is not same as  $\frac{\sqrt{3}}{5}$ .

WI. (-10) Not performing basic simplifications or premature use of calculators. Leaving the final statement of a problem as  $1 + 1$  instead of 2, or  $\sqrt{9}$  instead of 3, or  $\frac{8}{2}$  instead of 4, etc. Converting to decimals when short exact answers are available, e.g. writing 3.1 for  $\pi$ , 0.14 for  $1/7$ , 1.4 for  $\sqrt{2}$ .

WJ. (-10) Missing parenthesis. It is incorrect to write  $x + 2 y + z$  or  $x + 2 . y + z$  if you mean to write  $x + 2(y + z)$  or  $(x + 2)(y + z)$ . Use paranthese to clarify.

WK. (-10) Missing operation symbol. Do not drop  $\lim_{x \rightarrow \dots}$ ,  $\frac{d}{dx}$ ,  $'$ ,  $\int$  etc, from your calculations.

WL. (-10) Making smudge marks or crumpling the paper. Bring a good eraser and hold the two sides of the paper around the area you want to erase.

WM. (-10) Writing in small print. No letter, number, or symbol should be smaller than what you see here: abcdefghijklmnopqrstuvwxyz1234567890+ -  $\int$

WN. (-10) Writing with a blunt pencil. Come to tests with three already-sharpened pencils.