

FORMATTING: This is semi-formal writing, here. That means show some professionalism. You must not type it out, but you do need to be very clear.

1. Plain white background. You can use paper and scan it, or use a pen tablet and save directly to PDF. If you use paper, it needs to be plain 8 1/2- by 11-inch paper that you then scan to PDF.
2. Leave at least 1/2-inch margins, and plenty of white space (for teacher annotations) between and around problems, throughout the assignment. Cramped work will cost 10% of your grade, and may not be graded at all, if it's too cramped.
3. Do not use more than one column. I'm looking for #2 UNDER #3 (and so on), not crammed in beside it!
4. Write DARK. I have glaucoma, and if your writing is too faint for me to read, you'll just get a '0' and I will move on to the next paper. One trick is to re-copy your work on the highest density setting on a copying machine, until your writing really stands out. I don't mind if you use pen. Just put a line through mistakes.
5. I set a semi-bad example, because I'm worried about 100 students making copies of my solutions, which *is* a waste of paper, so my solutions tend to be at least slightly cramped, compared to what I'm asking of you.
6. Make ONE PDF FILE WITH MORE THAN ONE PAGE of your written work, scan it, and upload it to the appropriate dropbox on D2L.

#s 1 – 4 Use the quadratic formula to solve each of the following quadratic equations for x . Be sure to compute the discriminant, first, and separately. I'm looking for that on tests, as well, *whenever* you face a quadratic expression. It modularizes the work, and it tells you what you're getting into.

1. $x^2 + 7x - 18 = 0$
2. $17.71x^2 - 3.72x - 2.88 = 0$ (Round your final answer to 4 decimal places.)
3. $25x^2 - 20x + 7 = 0$ (Give an exact answer, in simplified radical form.)
4. $12wx^2 - 5cx - 3q = 0$ (Your answers will have letters in them. That's OK!)

#s 5, 6 Solve the following quadratic equations for x by factoring. You may use a sledgehammer, if you wish, but write the polynomial in factored form, after you find the solutions, to show you understand the connection between factors and solutions, frontwards and backwards! Give answers as integers or fractions, in lowest terms.

5. $x^2 + 6x - 55 = 0$
6. $1771x^2 - 372x - 288 = 0$

#s 7 – 10 Solve the following quadratic equations for x by completing the square. Do not use decimals; rather, use *fractions*, as needed, to complete the square. For example, use $\left(\frac{7}{2}\right)^2$, instead of $(3.5)^2$ for #7.

7. $x^2 + 6x - 55 = 0$
8. $x^2 - 18x - 25 = 0$
9. $5x^2 + 6x + 23 = 0$
10. $2x^2 - 13x + 8 = 0$