Week 1 Algebra 2 Assignment:

Day 1: pp. 5-6 #1-27
Day 2: pp. 12-13 #1-20, 26-30
Day 3: pp. 15-16 #1-31 odd, 34-39
Day 4: pp. 22-23 #1-10, 11-25 odd, 29-33

Notes on Assignment:

Page 5-6:

Work to show:
> #1-10: Draw one circle diagram and write the numbers in the correct places.
> #11-20: Answers only is fine.
> #21-27: Do only one operation per line. Your problems will have at least 4 lines each.

#1-10: Remember that rational numbers are numbers that *can* be written as a simple fraction. This includes repeating decimals.

#19-20: Remember the illustration I gave you in class about closing the door with a room full of the given set of numbers and trying to do the operation just with what you have in the room.

Pages 12-13:

Work to show:
> #1-10: Answers only is fine.
> #11-20: Clear all parentheses as you write the problem down. Then combine like terms.
> #26-30: Answers only

#1-10: Remember that variables with no exponent have an unwritten exponent of 1.

#11-20: Clear any parentheses first. Remember that if you are subtracting, that minus has to go all of the way through the parentheses. You can put a 1 in front of the parentheses and multiply all of the way through by -1. Then combine like terms. Remember that like terms are terms with the same variables raised to the same exponents. Add apples to apples, not bananas with blueberries. (o:

<u>Pages 15-16</u>:

Work to show:
    #1-13: Answers only is fine.
    #15-31: Show the terms that result from multiplying, then combine like terms for
           your answer.
    #29-33: Answers only

#1-9: If you have trouble with the rules of exponents, you can always expand everything.
       For example, on #5, you can write x^2 as x·x and then write that four times.

#11-13: Use the Distributive Property and multiply all of the way through.

#15-17: Use FOIL (first – outside – inside – last) whenever multiplying 2 binomials.

#19: The answer is not $x^2 - 81$ or $x^2 + 81$. You must write the binomial twice and use FOIL.

#27-31: You will have to use double (or triple) Distributive. Every term of one polynomial
      must be multiplied by every term of the other polynomial.

<u>Pages 22-23</u>:

Work to show:
    #1-11: Write these division problems as fractions, with the divisor underneath each
           term of the polynomial being divided. Cancel and write your answer.
    #13-25: Show the long division.
    #34-39: Show work as needed.

#1-11: Write these with the division bar instead of the ÷ symbol. Then, because of the
      distributive property, we can write the divisor under *each* term, and then simplify by
      canceling.

#13-25: These are long division problems. Follow the following steps:

    1. Write the problem in long division form. (problem #19 will need some place-
                     holders since it is missing the x^3 and x terms.
                     Use $0x^3$ and 0x as the placeholders.)
    2. Always look at the leading term of both polynomials. Ask what you must multiply
       the first term of the divisor (polynomial out front) by to get the first term of the
       dividend (polynomial under the long division symbol). Write that quantity on top
       of the long division symbol.
    3. Multiply that quantity times the entire divisor and write it underneath the matching
       columns of the dividend.
    4. Subtract. (Remember to subtract all of the way through.)

5. Bring down the next term of the dividend.
6. Repeat the process until you have no more terms to bring down. If the final remainder is 0, then you are done. If the remainder is a number, write it up by your answer as   "R ___".

* Look at the examples on page 21 if you need to see one worked out.