

## **Algebra Review:**

Day 1: Section A1: # 37-49 odd, 85-89 odd

Day 2: Section A2: #13, 23, 27, 29, 39, 65, 71, 83, 89, 91, 101

Day 3: Section A3: #1, 3, 25, 37, 41, 75, 83, 95, 105, 111, 119, 123, 129, 143, 173, 181

Day 4: Section A4: #23, 39, 41, 49, 61, Section A5: #19, 39, 47, 63, 85, 111, 155, 173

Day 5: Section A6: #1-11 odd, 25, 49, 99, Section A8 #3, 7, 21, 29, 37

## **Notes on Assignment:**

### **Section A1:**

#39-41: Remember that an open interval uses ( or ) and a closed interval (which includes the endpoint) uses [ or ]. Infinity always has ( or ).

#41-49: Always work out what is inside the grouping symbols first. Then take the absolute value and finish the calculations.

### **Section A2:**

#13: Refer to the properties of exponents on page A11. Remember that if a number has no exponent, it is a 1. Also, if a number has a negative exponent, you can make it a positive exponent by “kicking it” to the other part of the fraction. (This does not change the sign on the number, just the exponent.)

#27: A fractional exponent came from a radical.

#71: Take care of the negative sign on the exponent, and then change the expression to its radical form. Then simplify.

#83: Remember to break it down into perfect cubes (since it is a cubed root) or try to get 3 “buddies.”

#89-91: Use the buddy of the denominator when rationalizing the denominator.

#91: Use the conjugate when rationalizing the denominator.

#101: The plus sign acts as a “wall.” You must simplify each radical term separately first. Then if you have like radicals, you can then add them.

### Section A3:

#37: Use the distributive property.

#41: Use FOIL to multiply binomials.

#75: Write the binomial twice and use FOIL. Be careful when multiplying the radicals.

#111: You must use the formula for the sum of cubes on page A27.

#119, 123: These are done with backwards FOIL.

#129: Factor the common factor out the first 2 terms, then factor the common factor out of the last 2 terms. If what you have inside both sets of parentheses is the same, pull it out as a group common factor. Sometimes it is helpful to see this if you draw a circle around each set of parentheses and then pull out the whole circle as a common factor.

#143: Always look for the greatest common factor first when factoring polynomials.

### Section A4:

#23: Factor, then cancel any common factor that appears in both the denominator and numerator.

#39: Factor, then cancel any common factor that appears in both the denominator and numerator of the product.

#41: Write the division as multiplication by “flipping” the second fraction. Technically, when we divide by a fraction, we multiply by its reciprocal. Once changed to multiplication, follow the same procedure as in #39.

#49: To add fractions you must get a common denominator. Factor the denominators first and multiply each fraction by 1 (in the form of “something”/”itself”)

#61: Simplify the numerator first by getting a common denominator and adding. Then write the division as multiplication and continue.

### Section A5:

#19: Clear the ( ) first, isolate the variable term, and then multiply or divide to solve.

- #39: Multiply through by the LCM to clear the fractions. Then solve.
- #47: Clear the ( ) and then solve.
- #63: Get all terms on one side, factor, set each factor equal to zero, and solve each resulting equation.
- #85: Move the 32 to the other side of the equal sign before completing the square. To complete the square, take half of the 4 and square it.
- #111: Use the quadratic formula on page A49.
- #155: Isolate the radical and then square each side. Solve the resulting equation. Make sure to check your solutions in the original equation.
- #173: Clear the fractions first.

### Section A6:

- #25: Remember that when you multiply or divide both sides by a negative number, the inequality must be reversed.
- #49: When working with absolute values and inequalities, remember that “less than” goes to “and” and “greater than” goes to “or.”
- #99: Factor first, draw your “walls” where each factor equals zero, and see what the signs will be on each interval.

### Section A8:

- #21: Sketch this on paper. Do not do the scatterplot on the computer.
- #37: Use the Distance Formula and the Midpoint Formula on pages A80 and A82.