Week 2 Algebra 1 Assignment:

Day 1: p. 25 #1-24, 27-32
Day 2: pp. 30-31 #1-35 odd, 38-45
Day 3: pp. 33-34 #1-19 odd, 27-35
Day 4: pp. 38-39 #1-11 odd, 13-19, 26-35
Day 5: pp. 42-44 #1-39

Notes on Assignment:

Page 25:

Work to show:

#1-15: Answers only is ok.
#16-24: Show calculations.
#27-32: Show any work needed.

#1-10: When dividing, if you have one negative and one positive number, the quotient is negative. If you have 2 of the same sign, the quotient is positive.

#3: Division by zero is always labeled "undefined." It's impossible to know how many times 0 goes into a number. Is it a little or a lot of times? Can you cut a pizza into zeroths, like you can cut it into fourths? No. (o:

#8: You can have 0/4 of a pizza. It just means you don't get any. (o: So, 0/-37 equals 0 for the same reason.

#11-15: Be careful to get the correct number on top.

#29-31: Ask yourself "What changed from the left side to the right side. If it was the order, then the property demonstrated is Commutative, if you added 0 to a number, then the property was the Identity property, etc.

Pages 30-31:

Work to show:

#1-45: Show any work needed.

#4: Don't you dare say the answer is 4!

#5: Any number to the power of 0 is 1. The only exception is 0^0, which is undefined.

#11-25: You can use the properties of exponents on page 29, but you can also expand these exponents to figure out the answer if you need to.

#12: This problem is tricky. Use the division rule and subtract the exponents. We will talk more about negative exponents in the future.

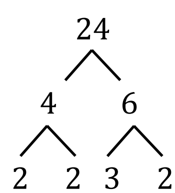
#19: For division problems like this, rewrite the problem using the division bar instead of the ÷ symbol. Then do your canceling.

Pages 33-34:

Work to show:

#1-19: Show factor trees.
#27-35: Show any work needed.

General notes for this section: Use factor trees for all of these. Break down your numbers until you cannot break them down any further. Then list your product of factors in order, using exponential notation if a number appears more than once as a factor. (instead of writing 3·3·5, write $3^2 \cdot 5$.) Factor trees should look like this:



$2^3 \cdot 3$

#1-19: Use factor trees for all of these.

#17: 47 is one of the factors

#19: 13 is one of the factors and it's used more than once.

Pages 38-39:

Work to show:

#1-11: Show factor trees for each number.
#13-19: Answers only is ok.
#26-35: Show calculations.

#1-5: To find the Greatest Common Factor (GCF) of 2 numbers, first find the prime factorization of each number using the factor tree method. Then circle each factor that is *common* to each number. If the same factor appears twice in one number, but only once in the other number, you can only circle one in each. There must be a 1-to-1 correspondence. When you have circled all of the common factors, multiply them to find the GCF. (For example, if the factors 2 and 3 are circled as common to both, then the GCF = $2 \cdot 3 = 6$.)

#7-11: To find the Least Common Multiple (LCM) of 2 numbers, first find the prime factorization of each number using the factor tree method. For a number to be a multiple of the 2 given numbers, each of those 2 given numbers must have all of their factors in the multiple. So, start by writing all of the factors of the first number down. Then write any factors from the 2nd number that aren't already listed from the first number. Multiply all of these numbers for the LCM. (For example, if one number factors to $2 \cdot 2 \cdot 2 \cdot 3 \cdot 5$ and the other factors to $2 \cdot 2 \cdot 3 \cdot 3 \cdot 5 \cdot 5 \cdot 7$, then the LCM would be $2 \cdot 2 \cdot 2 \cdot 3 \cdot 5 \cdot 3 \cdot 5 \cdot 7 = 12{,}600$.)

#13-14: It may be easier to do these problems if you write out each expand each exponent.

Pages 42-44:

Chapter 1 Review – no notes.