Week 3 Algebra 1 Assignment:

Day 1: Chapter 1 test
Day 2: p. 50 #1-25, 29-33
Day 3: p. 55 #1-13 odd, 15-29, 32-36
Day 4: pp. 59-60 #1-17 odd, 18-26, 31-35
Day 5: p. 65 #2-20 even, 21-25, 28-32

Notes on Assignment:

Chapter 1 test:

The test is closed-book. No notes, books, or calculators are allowed. Have your parents sign the test and then staple it in half.

Page 50:

Work to show:
    #1-10: Show calculations.
    #11-20: Draw one Venn diagram to use with all of these problems.
    #21-33: Show any work needed.

#1, 2, 4, 5: Do the actual long division by putting the top number (numerator) under the long division symbol and the bottom number (denominator) in front. Put as many zeros as needed until the division has no remainder, or you find that the decimal is a repeating decimal. If it is a repeating decimal, put a bar over the digit(s) that repeat.

#3: To change a percent to a decimal, move the decimal point 2 places to the left.

#6: 3 out of 6 is the same as the ratio (fraction) 3/6.

#5: This decimal repeats, so be patient!

#7,10: The denominator will be whatever the furthest right place is. If you have 1.35, your fraction would be 135/100 since the 5 is in the hundredths place.

#8: Percent means "out of a hundred" so 82% means 82 out of a hundred. Write the fraction that this represents.

#9: The square root of 9 is the number that you multiply times itself to get 9. Take that number and write it as a fraction.

#11-20: The irrational numbers are real numbers but lie outside of the rational circle.
Remember the sets of numbers:

- Natural numbers: {1, 2, 3, …}
- Whole numbers: {0, 1, 2, 3, …}
- Integers: {…-3, -2, -1, 0, 1, 2, 3…}
- Rational numbers: {numbers that *can* be written a/b}
- Irrational numbers: {numbers that *cannot* be written a/b} (non-repeating, non-terminating decimals)
- Real numbers: {Rational numbers} U {Irrational numbers}

#29-33: The word "of" generally translates to multiplication.

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Work to show:
     #1-13: Show any work needed.
     #15-29: Show work.
     #32-36: Answers only

#5-13: Rewrite the fraction with the given number as the new denominator. Write down the fraction and multiply it by 1 in some form (something over itself, like 4/4, 5/5, 6/6, etc.)

#15-24:   Do these problems horizontally and not vertically. When you write them down, leave some space so you can write the form of 1 that you are multiplying by beside each fraction.

#25-28: Remember to line up the decimal points when adding and subtracting decimals.

Pages 59-60:

Work to show:
     #1-20: Write the multiplication problem and show the cross cancelling. Finish the multiplication.
     #21-24: Write down the calculation needed and show work.
     #25-26: Answer only is fine.
     #31-35: Show any work necessary.

#1-5: Do any canceling before you multiply. Remember that you can cancel any factor in a numerator with any factor in a denominator, even if it's within the same fraction. Answers can be left as improper fractions (numerator is larger than denominator) as long as it is simplified. You do not need to change it to a mixed number.

#6-10: To divide by a number, you multiply by its reciprocal. This means that you "flip" the divisor (2nd number) and then multiply. After you change it to multiplication, *then* you can cancel.

#11-12: When multiplying decimals, count up the total number of places represented to the right of the decimal points in your numbers. That is how many places your answer must have.

#13-15: Move the decimal points over the same number of places in the divisor (number out front) and the dividend (number underneath) so that the divisor is a whole number.

#17-20: Decide on the sign for the answer before you do the problem. Write it down. Then ignore the signs and do the multiplying as usual.

#22: If there are 3 kids, then divide the 1 ½ gallons by 3.

#23: Perimeter means the total distance around a figure.

#32: Using the numbers given, change it to multiplication. ("what" times "what" equals "what"?)

#34: What happens when you try to check the division problem a ÷ 0 = b by changing the equation into multiplication (like you did for problem #32)?

#35: We know that the zero principle is that a · 0 = 0. Change that to a division problem (follow the pattern of problem #32).

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Work to show:
#2-20: Write the problem on your paper. Underline the calculation you are going to do, then write the problem again after you have completed the calculation. If there is another calculation to be done, repeat the process. One calculation per line! Here's an example:

$$[20 + (\underline{4 \cdot 7})] \div 8$$

$$[\underline{20 + 28}] \div 8$$

$$\underline{48 \div 8}$$

$$6$$

#2-20: Do not just list the answers. Show your work. Remember to follow the order of operations:
1. Grouping symbols
2. Exponents
3. Multiplication and division (left to right)
4. Addition and subtraction (left to right)

#21: When you square a number, you raise it to an exponent of 2. (Example: The square of 7 is 7^2.)

#23: The next consecutive odd number means the very next odd number.