# Week 9 Pre-Algebra Assignment:

Day 1: pp. 147-148 #1-21 odd, 22-29, 41-50
Day 2: pp. 150-153 #1-33 odd, 53-56
Day 3: p. 169 #1-35 odd, 45-52
Day 4: pp. 176-177 #1-30, 44-46
Day 5: Chapter 4 test

## Notes on Assignment:

### Page 147-148: (#1-21 odd, 22-29, 41-50)

**Work to show:**

#1-11: Answers only
#13-21: Show the factorization tree for each number.
#23-29: Answer only is ok
#41-44: Show the rounded numbers and the answer.
#45-50: Answers only. Use n for the variable.

#1-11: Do these in your head. The GCF is the largest number that will go into each number.

#13-21: Use the factorization tree for each number. Then circle the factors that are common to each number. The GCF is the product of these numbers.

#23-27: Remember that for the GCF of the variables you pick out the variable term that has the smallest exponent. For example, the GCF for $x^7$ and $x^5$ is $x^5$. Or, you can expand each. For the number part, show the factor tree if needed.

### Pages 150-153: (#1-33 odd, 53-56))

**Work to show:**

#1-15: Answers only
#17-27: Show factorization trees.
#29-33: Show work needed.
#53-56: Show steps to solve.

#1-15: To find the LCM you need the smallest number that all of the numbers will go in to.

#17-27: For the LCM write the prime factorization of the first number down, then write any other factors needed so that all of the numbers' factorizations are represented.

#29-33: For the LCM of variables, write the variable with the largest exponent. For example, the LCM for $x^7$ and $x^5$ is $x^7$.

#53-56: Show what is being done to both sides. Remember that when you multiply or divide by a negative number, you need to flip the inequality.

## Page 169: (#1-35 odd, 45-52)

**Work to show:**

#1-15: Write down what you are multiplying each digit by.
#17: Answer only is ok.
#19-35: Show the place values for the given base, then show work.

#1-15: Do these problems as follows. Example: Write $204_5$ in base 10.

| $5^3 = 125$ | $5^2 = 25$ | $5^1 = 5$ | $5^0 = 1$ |
|---|---|---|---|
| | $2 \cdot 25$ | $0 \cdot 5$ | $4 \cdot 1$ |
| | $50$ | $0$ | $4$ |

$$50 + 0 + 4 = 54_{10}$$

#17: You need $4^0, 4^1, 4^2, etc.$ To get the numbers needed.

#19-35: Do these as follows. Example: Write 98 in base 4.

| $4^3 = 64$ | $4^2 = 16$ | $4^1 = 4$ | $4^0 = 1$ |
|---|---|---|---|

$98 \div 64 = 1\ R.34$ $\quad 34 \div 16 = 2\ R.2$ $\quad 2 \div 4 = 0\ R.2$ $\quad 2 \div 1 = 2$

Answer: $1202_4$

#45-48: Show the rounded numbers and then write the estimate.

#49-52: Combine like terms right away. The divide both sides to finish.

## Pages 176-177: (#1-30, 44-46)

**Work to show:**

#1-13: Answers only
#14-23: Show factorization trees.
#24-25: Show any work needed.
#26-30: Show factorization trees.
#44-46: Show the place values for the given base, then show work.

#9-12: Refer back to your divisibility rules for these.

#13: See page 141.

## Chapter 4 Test:

What's on the test:

- Determine whether a number is a factor of another number.
- Determine whether a number is prime or composite.
- Write the prime factorization of a number.
- Find the GCF and LCM of a set of numbers.
- Write a number in base 10.
- Write a number in a different base.