ALGEBRA 1

Calamity Day 6 (1st day)

BLIZZARD BAG FOR 2014-2014 SCHOOL YEAR

Name_____ Date_____

Chapter 7- Factoring Polynomials: Use a separate piece of paper for each assignment1

In this chapter you will study greatest common factors

- ***How to factor polynomials***
- ***How to factor special products***
- ***How to choose a factoring method***

Objective(s): Students will write prime factorization of numbers; students will find the GCF of monomials.

Helpful to Know:

Monomial = 1; Binomial = 2; Trinomial = 3; Polynomial = many

Key Vocabulary: Define words below

1. *GCF (Greatest Common Factor):*

   _____

   _____

2. *Prime Factorization:*

   _____

   _____

Lesson 7.1 Factors and Greatest Common Factor

Write the primer factorization of each number.

3. *18 =* _____
4. *56 =* _____
5. *120 =* _____
6. *45 =* _____

Find the GCF of each pair of numbers.

7. 16 and 20 _____ *8. 9 and 36 _____*

9. 15 and 28 _____ *10. 35 and 42 _____*

11. 33 and 66 _____ *12. 100 and 120 _____*

13. 78 and 30 _____ *14. 84 and 42 _____*

Calamity Day 7 (2nd day)

Lesson 7.2 (pg. 47) in Algebra Practice & Problem Solving Workbook

Practice:

Factoring by GCF

*Factor each **poly**nomial. Check your answer. SHOW YOUR WORK ON RIGHT SIDE OF PAPER!*

1. $8^{c2} + 7c$ ----------
2. $3^{n3} + 12^{n2}$ ----------
3. $15^{x5} - 18x$ ----------
4. $-8^{s4} + 20^{t3} - 28$ ----------
5. $6^{n6} + 18^{n4} - 24n$----------
6. $-5^{m4} - 5^{m3} + 5^{m2}$ ----------
7. *Word Problem: The area of Margo's laptop computer screen is $12^{x2} + 3x$ in^2. Factor this polynomial to find the expressions for the dimensions of her computer screen. (show your work below).*

Factor each expression.

8. *3m (3 + 5) + 4(m + 5)*

9. *16b(b – 3) + (b – 3)*

Factor each polynomial by grouping.

10. $2^{x3} + 8^{x2} + 3x + 12$

11. $10^{d2} – 6d + 35d - 21$

12. $t^3 – 5^{t2} + 10 – 2t$

Calamity Day 8 (3rd day)

Lesson 7.3- Factoring $x^2 + bx + c$

*Factor each **<u>tri</u>**nomial*

1. $X^2 + 7x + 10$
2. $X^2 + 13 + 36$
3. $X^2 – 9x + 18$
4. $X^2 + 2x – 3$
5. $X^2 – 2x – 35$
6. $X^2 – x - 20$

Calamity Day 8 Cont'd. (3rd day)

Lesson 7.4- Factoring $ax^2 + bx + c$

*Factor each **tri**nomial*

7. *$4x^2 + 24x + 27$*
8. *$9x^2 - 3x - 2$*
9. *$-12x^2 - 35 - 18$*
10. *The area of a rectangle is $20x^2 - 27x - 8$. The lengths is $4x + 1$. What is the width?*

Lesson 7.5 – Factoring Special Products:

11. *Define each of the following terms & given an example of each.*
    *Binomial:*_____
    _____
    Trinomial:
    _____
    _____
    Polynomial:
    _____
    _____
    Monomial:
    _____
    _____

*Determine whether each **tri**nomial is a perfect square. If so, factor it. If not, explain why.*

12. *$X^2 + 6x + 9$*
    _____
    _____

*Determine whether each **bi**nomial is the difference of perfect squares. If so, factor it, if not, explain why.*

13. *$9b^4 - 200$*
    _____
    _____

Concepts of Geometry

Calamity Day 6 (1st day)

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Calamity Day 6 (1st day)

Using the table below define each vocabulary term, naming part, & diagram.

Undefined Term	*Description*	*Naming Part*	*Diagram*
Point			
Line			
Plane			
Line Segment			
Ray			
Opposite Rays			
Parallel Line			

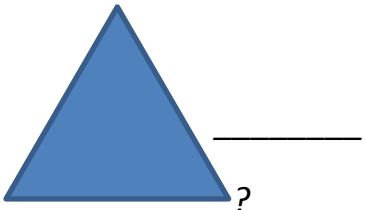
Cont'd. Undefined terms:

Circumference			
Obtuse			
Acute			
Isosceles			
Radius			
Perimeter			
Parallelogram			
Equilateral			

Calamity Day 7 (2nd day)

Angle Measurement in a Triangle: The sum of all angles of a triangle is 180 degrees. Use that information to find the unknown angle for each triangle. Use the space below to show your work.

1.



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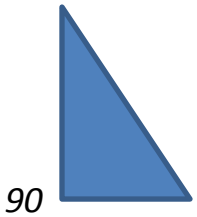
2.



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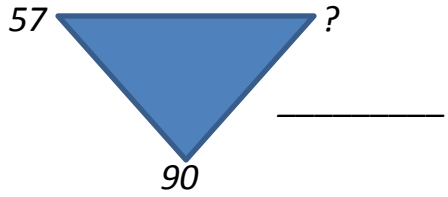

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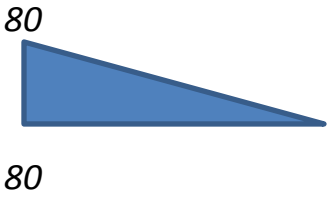

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Calamity Day 8 Cont'd. (3rd day)

Connecting Algebra to Geometry: ***Two angles whose measures have a sum of 90 degrees are called complementary angles. For Exercise 1-3, x and y represents the measures of complementary angles. Use this information and the equation given in each exercise to find the measure of each angle. Use the space provided to work out your problems. Show your work!***

1. ***y = 4x -10***

2. ***x = 2y***

3. ***y = 2(x - 15)***