**Unit 7: Factoring**

**Lesson 2: Factoring a trinomial with a leading coefficient =1**

Objectives:

* I can factor a trinomial with a leading coefficient =1
* I understand the connection between the sum and product of the numbers in the factors and the quadratic trinomial.
* I can factor a trinomial with a leading coefficient =1 to solve real-life applications.

Agenda:

* Video 7-2
* Practice
* Application
* Quick Check

Focus Questions:

* How can you factor a quadratic with a leading coefficient of 1 using guess and check?
* What is the connection between the sum and product of the numbers in the factors and the quadratic trinomial?

Vocabulary: Trinomial, Factors

Homework: HW 7-2

Web support:

* <https://www.khanacademy.org/math/algebra/polynomial-factorization/factoring-quadratics-1/v/factoring-polynomials-1>
* <https://www.youtube.com/watch?v=NwrmX6c_JhQ>

Study for the midterm there are no do overs

**Do Now: Looking back**

1. 



1. **Use the distributive property and leave your answers in standard form.**
2. 2.

**Factor using the two types you learned about from last class.**

1. 2. 3.

4.5.6.

7.8.9.

*Notes:*

***To factor a trinomial****in the form x2 + bx + c, find* ***two integers*** *whose* ***product is****c and whose* ***sum is b.*** *... For example, to factor x2 + 7x +10, you are looking for two numbers whose sum is 7 (the coefficient of the middle term) and whose product is 10 (the last term).*



**Notes: 7-2: Trinomials Play the video first: AC Method or split the middle.**

**Factor Trinomials with standard form of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| 1.
 | 1.

  |
| 1.
 | 1.
 |
| 1.
 | 1.
 |

**Your Turn:**

|  |  |
| --- | --- |
| 1.
 | 1.
 |

**Factor Completely: Sometime you might have to factor twice.**

|  |  |
| --- | --- |
| 1.
 | 2.  |

**Name: \_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_**

**Homework 7-2: Factoring Day 2.**

1. Which of the following products is equivalent to the trinomial ?
2. (3)
3. (4)

Factoring Using AC Method (Split the middle)

|  |  |
| --- | --- |
| 2.  | 3.  |
| 1.
 | 1.
 |

Mixed problems: Please refer to the Do now or last lesson.

6.7.

The following might require you to factor twice: Check using the graphing calculator.

|  |  |
| --- | --- |
| 8.  | 9.  |
| 10   |    |
|   |   |

**14 Word Problems:** The length of a rectangle is represented by and the width is represented by .

Express the area of the rectangle as a binomial in terms of x.