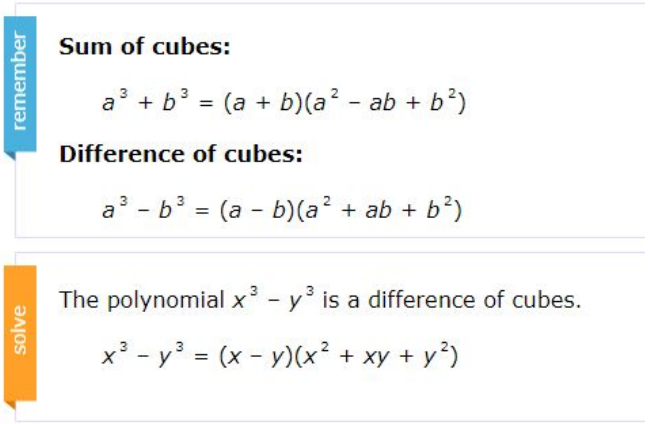
Algebra 2
Lesson: April 7th

Learning Target:
Students will factor polynomial expressions involving the sum and difference of cubes.

Let's Get Started:
Watch Video - Factoring Sum and Difference of Cubes

Practice:
Go to this website:
Factor Sums and Differences of Cubes

1. Get out a sheet of paper, review and solve the problem on Factor Sums and Differences of Cubes. You may do several problems, if you choose to do so.
2. Find the binomial that completes the factorization; cube root both terms, keeping the sign between them.
3. Here are the patterns for the sum and difference of cubes, as well as review for the problem above:



Factoring Polynomials Practice:

On the same sheet of paper, factor the following 4 practice problems using the sum or difference of cubes.

1. $64y^3 - 729$

2. $216x^3 + 1$

3. $8z^3 + 27$

4. $343w^3 - 125$

Factoring Polynomials Answer Key:

Once you have completed the problems, check your answers here.

1. $(4y-9)(16y^2+36y+81)$

2. $(6x+1)(36x^2-6x+1)$

3. $(2z+3)(4z^2-6z+9)$

4. $(7w-5)(49w^2+35w+25)$

Additional Practice:

Click on the links below to get additional practice and to check your understanding. There are two videos, practice problems, and the answer key to the practice problems.

Factoring Sum of Cubes Video

Factoring Difference of Cubes Video

Factoring Sum/Difference of Cubes Practice

Factoring Sum/Difference of Cubes Practice Answer Key