FT – Unit # 3 :Factoring Self-Check/Tracker

Need help? Use your notes, practice problems, bellringers, and other work.

Level 4 Advanced (Blue) 95% or 100%
Level 3 Proficient (Green) 90%
Level 2 Basic (Yellow) 70% or 80%

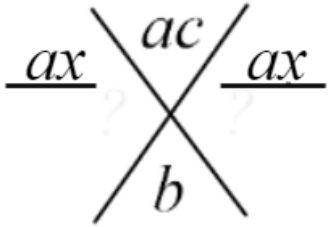
Priority Standards

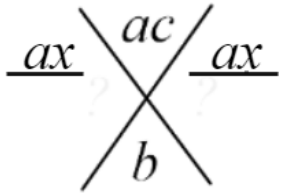
HSA-SSE.B.3 Seeing Structure in Expressions–Write expressions in equivalent forms to solve problems.

3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.★

HSA-APR.D.6 Arithmetic with Polynomials & Rational Expressions–Rewrite rational expressions.

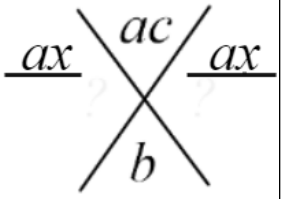
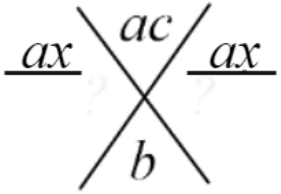
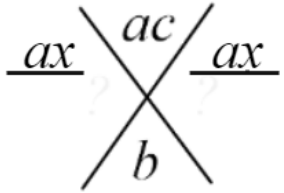
6. Rewrite simple rational expressions in different forms; write $^{a(x)}/_{b(x)}$ in the form q(x) + $^{r(x)}/_{b(x)}$, where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less than the degree of b(x), using inspection, long division, or, for the more complicated examples, a computer algebra system.

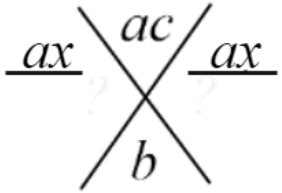
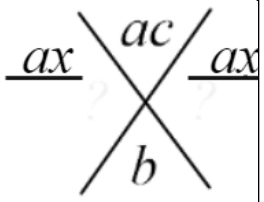
SUCCESS CRITERIA	Circle Your Proficiency Level			
	CFA #1	CFA #2	CFA #3	TEST
Level 2 I can… recognize or recall specific vocabulary. ● For example, binomial, coefficient, trinomial, value, variable, and GCF. **Level 3** I can…perform basic processes using quadratic functions such as: ● Factor out the GCF, such as $2x^2 + 4x + 8$ becomes $2(x^2 + 2x + 4)$ ● Factor quadratic functions, where the leading coefficient is 1. For example, factor $x^2 - 2x - 35$ into the form $(x - 7)(x + 5)$. ● Factor out a greatest common factor if possible ● Set up a big X problem, where you will find 2 numbers that multiply to give you *ac* and also add/subtract to give you *b*. ● Reduce fractions if possible ● Write down the factors as a product. 	**HSA-SSE.B.3** A P B B B			**HSA-SSE.B.3** A P B B B **HSA-APR.D.6** A P B B B

Level 3 I can… factor a quadratic functions with any leading coefficient For example… • factor second-degree functions where the leading coefficient is greater than 1, such as $7x^2 + 9x + 2$ by using the big X. • Factor out a greatest common factor if possible • Set up a big X problem, where you will find 2 numbers that multiply to give you ac and also add/subtract to give you b. • Reduce fractions if possible • Write down the factors as a product. 		**HSA-SSE.B.3** A P B B B		
Level 3 and Level 4 I can… Factor quadratic functions that are not in descending order. • For example, rewrite $-5x + 2x^2 - 12$ in descending order, $2x^2 - 5x - 12$ and then factor. I can…factor a quadratic function using special factors • Factor out a greatest common factor if possible • Recognize if the problem is a difference of squares or a perfect square binomial • Use $a^2 - 2ab + b^2 = (a - b)^2$ OR $a^2 + 2ab + b^2 = (a + b)^2$ for perfect square binomials • Use $a^2 - b^2 = (a + b)(a - b)$ for difference of squares I can… Simplify rational expressions • Factor the numerator and the denominator of a fraction • Reduce the number parts of the factors • Identify identical factors in the numerator and denominator to cancel • Write the simplified fraction			**HSA-SSE.B.3** A P B B B **HSA-APR.D.6** A P B B B	

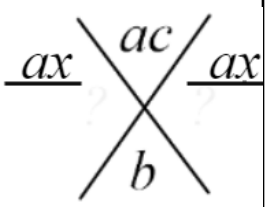
Factoring Daily Planner

Common Grading

Week 1 of Factoring			
Day 1: GCF • Key for Notes on GCF • Notes Blank Version • Partners: Factoring out the GCF Extra: Quizizz GCF Polynomials LT: I will be able to....factor the GCF out of various polynomials. SC: If I can... • Find a common factor of (divides) each term of the polynomial, and write it in factored form. Ex: $2x^2 + 4x = 2x(x + 2)$	Day 2: Coefficient of 1 • Key for Factoring w/a Leading Coefficient of 1 • Notes Blank Version • Printable Notes Leading Coefficient of 1 • Quizizz LT: I will be able to....factor quadratic functions with a leading coefficient of 1. SC: If I can... • Factor out a greatest common factor if possible • Set up a big X problem, where you will find 2 numbers that multiply to give you ac and also add/subtract to give you b. • Reduce fractions if possible • Write down the factors as a product. 	Day 3: Coefficient Greater than 1 and CFA #1 • Key for a Leading Coefficient Greater than One • Notes Blank Version • Printable Notes Leading Coefficient Greater than 1 • CFA #1 GCF/Leading Coefficient 1 on Mastery Connect LT: I will be able to....factor quadratic functions with a leading coefficient of 1. SC: If I can... same 	Day 4: Coefficient Greater than 1 • Puzzle on Factoring with a Leading Coefficient Greater than One LT: I will be able to... • factor a quadratic function with a leading coefficient greater than one. SC: If I can... same 

Week 2 of Factoring			
Day 5: Practice and CFA #2 • Finish puzzle • CFA #2 GCF/Leading Coefficient not 1 in Mastery Connect • Kahoot! LT: I will be able to... • factor a quadratic function with a leading coefficient greater than one. SC: If I can... same 	Day 6: Special Factors • Bellwork for Special Cases (look for pattern) • Printable Math Lab: Special Factors • Notes for Lab Blank Copy • Key for Special Factoring • Printable Notes on Special Factoring • Practice Factoring Special Cases (Desktop Practice) • Flowchart Factoring Method Quizizz Practice LT: I will be able to... • use shortcuts to factor the difference of squares or perfect square binomials SC: If I can... • Factor out a greatest common factor if possible • Recognize if the problem is a difference of squares	Day 7: Rational Expressions Bellringer • Notes on Simplifying Rational Expressions • GO Notes Simplifying Rational Expressions Practice • Simplifying Rational Expressions Coloring Activity LT: I will be able to... • Simplify a fraction using factoring to reduce or cancel SC: If I can... • Factor the numerator and the denominator of a fraction • Reduce the number parts of the factors • Identify identical factors in the	Day 8: Review and CFA #3 • CFA #3 Special Cases/Rational Expressions on Mastery Connect • Kahoot • Quizizz Simplifying Rational Expressions • Or Review Mastery Connect Questions WS LT: I will be able to... • factor a quadratic function with a leading coefficient greater than one. SC: If I can... • Factor out a greatest common factor if possible • Use the big X to factor 

	or a perfect square binomial • Use $a^2 - 2ab + b^2 = (a$ OR $a^2 + 2ab + b^2 = (a$ for perfect square binomials • Use $a^2 - b^2 = (a + b)($ for difference of squares	numerator and denominator to cancel • Write the simplified fraction	• Factor special cases • Simplify rational expressions
Week 3 of Factoring			
Day 9: Review • Review Factoring Quadratics Digital Escape LT: I will be able to… • factor a quadratic function with a leading coefficient greater than one. SC: If I can… • Factor out a greatest common factor if possible • Use the big X to factor	Day 10: Test • Test on Mastery Connect LT: I will be able to…show my knowledge of factoring on my assessment SC: If I can..score proficient on my assessment about factoring		

 • Factor special cases • Simplify rational expressions			