

# 05\_Factoring Polynomials

Content Area: **Math**  
Course(s):  
Time Period: **Full Year**  
Length: **2 weeks (7-8 blocks)**  
Status: **Published**

## General Overview, Course Description or Course Philosophy

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This unit will focus on strengthening the prerequisite skills and conceptual understanding needed to factor polynomials. Lesson activities will reinforce new content and address common misconceptions and errors to support students' progress toward factoring polynomials.

## OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

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### Objectives/Enduring Understandings:

Students will understand that:

- Rules of arithmetic and algebra can be used together with equivalence to transform polynomial expressions

### Essential Questions:

- How do you work with polynomials to rewrite expressions and solve problems?
- How is factoring a polynomial similar to factoring integers?
- How does factoring a trinomial relate to multiplying binomials?

## CONTENT AREA STANDARDS

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MA.K-12.2	Reason abstractly and quantitatively.
MA.K-12.7	Look for and make use of structure.
MA.A-SSE.A.2	Use the structure of an expression to identify ways to rewrite it. For example, see $x^4 - y^4$ as $(x^2)^2 - (y^2)^2$ , thus recognizing it as a difference of squares that can be factored as $(x^2 - y^2)(x^2 + y^2)$ .

## RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)

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WRK.K-12.P.5	Utilize critical thinking to make sense of problems and persevere in solving them.
WRK.K-12.P.8	Use technology to enhance productivity increase collaboration and communicate effectively.

**STUDENT LEARNING TARGETS**

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**Declarative Knowledge**

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Students will understand that:

- There are techniques and strategies for factoring polynomials

**Procedural Knowledge**

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Students will be able to:

- Rewrite expressions into equivalent expressions using one or multiple factoring techniques

**EVIDENCE OF LEARNING**

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**Formative Assessments**

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- Student daily participation
- Student self-assessment
- Skills checklist
- Student-friendly proficiency scales
- Teacher feedback

**Summative Assessments**

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- Assessment Reflection

## **RESOURCES (Instructional, Supplemental, Intervention Materials)**

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- Kuta Software
- Quizizz
- Desmos
- Delta Math
- Nearpod
- Khan Academy
- Assessment Reflection

## **INTERDISCIPLINARY CONNECTIONS**

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- Factoring polynomials have real-world applications in physics

## **ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS**

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See link to Accommodations & Modifications document in course folder.