

### Unit 3: Equivalent Forms

Relevant Course Objectives:

CO2 (Solving Equations and Inequalities): Solve equations and inequalities and explain the reasoning using tables, graphs, expressions, and descriptions.

CO3 (Polynomials and Complex Numbers): Perform arithmetic on polynomials and complex numbers to simplify algebraic expressions and analyze the structure of functions.

**Essential Question:**

- **How can we determine whether two expressions are equivalent?**
- **How can we keep track of information that gets lost when simplifying expressions?**

#### Week 6 October 5 - 9

##### **Monday - 3.1.1 and 3.1.2**

- Determining Equivalence
- Create Equivalent Expressions (3-3)
- Sometimes, Always, Never (3-13)
- Area Models (3-14 through 3-17)

HW 10: Ch. 3 #5, 6, 9, 12 (3.1.1) and #27 (3.1.2)

##### **Tuesday - 3.1.2 and 3.1.3**

- Finish work with area models (3-14 through 3-17)
- Difference of Squares (3-18 through 3-20)
- U-Substitution (3-21 and 3-22)
- Solving by Rewriting - if time permits (3-37 and 3-38)

HW 11: Ch. 3 #23, 26, 28, 29, 30 (3.1.2)

##### **Thursday - 3.1.3**

- Solving by Rewriting (3-37 and 3-38)
- U-Substitution (3-39 through 3-44)

HW 12: Ch. 3 # 31, 32, 33 (3.1.2) and #46, 49 (3.1.3)

#### **Unit 2 Assessments:**

Formative: TBD

Summative: Unit 3 Test (Estimated to be Tuesday October 27)

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Week 7 October 12 - 16

**Monday - No School (Columbus Day)**

**Tuesday - 3.1 Synthesis and Review of Unit 2 (as needed)**

- TBD

HW 13: Ch. 3 #53 (3.1.3) and #63, 64, 65, 69 (3.2.1)

**Thursday - 3.2.1 / 3.2.2**

- Combining Linear Functions (3-57)
- Closed Sets (3-61)
- Simplifying with the “Big 1” (abridged version of section 3.2.2 - see Claudine if absent)

HW 14: Ch. 3 #67 (3.2.1) and #78, 81, 82, 83 (3.2.2)

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Week 8 October 19 - 23**Monday - 3.2.3**

- Finish work from 3.2.2
- Fraction Multiplication and Division (must see Claudine to make up)
- Multiplying and Dividing Rational Expressions (3-87 and 3-88)

HW 15: Ch. 3 #90, 91, 92, 93, 95, 96 (3.2.3)

**Tuesday - 3.2.4**

- Why Do We Need a Common Denominator? (3-97)
- Adding Rational Expressions (3-98 through 3-100)

HW 16: Ch. 3 #102, 103, 104, 107, 109 (3.2.4)

**Thursday - 3.2.5**

- Practice all 4 Operations (3-110)
- Can we check our answers?

HW 17: Ch. 3 #105 (3.2.4) and # 114, 115, 119, 126 (3.2.5)

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Week 8 October 26 - 30**Monday - Ch. 3 Closure**

- TBD

HW: Study for Ch. 3 Test (Study Guide will be collected but not graded)

**Tuesday - Ch. 3 Test**

HW 18: Ch. 3 #107 (3.2.4) and #128, 129, 132, 133 (Ch. 3 Closure Section)

**Thursday - Start Unit 4**

- TBD

HW 19: TBD

**Unit 2 Assessments:**

Formative: TBD

Summative: Unit 3 Test (Estimated to be Tuesday October 27)