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| **Beginning Algebra OER Instructors’ Guide** |
| **Class**  | **MOM****Section**  | **Topic** | **Objectives**  | **Teaching Notes**Teach Workbook examples and give in-class practice problems to students using workbook exercises (instructor can always modify number of exercises if necessary, based on level of class)  | **Suggested Homework**  |
| 1.   | 0.1 | [**Integers**](http://www.wallace.ccfaculty.org/book/0.1%20Integers.pdf) | Add, subtract, multiply and divide positive and negative numbers  | **Teach**: Workbook examples A, B* In-class problems for students: Worksheet: 1-7

Workbook examples C-F * In-class problems for students: Worksheet: 8-18 even

Workbook examples G, H * In-class problems for students: Worksheet: 19-24
 | Myopenmath* Practice problems

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| 2.  | 0.2 | [**Fractions**](http://www.wallace.ccfaculty.org/book/0.2%20Fractions.pdf) | Reduce, add, subtract, multiply, and divide with fractions | **Teach:** Workbook examples A- C* In-class problems for students: Worksheet: 1-7 odd

Workbook examples D-G* In-class problems for students: Worksheet: 9-17  odd

Workbook examples H-K* In-class problems for students: Worksheet: 19-25  odd
 | Myopenmath* Practice problems

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| 3.  | 0.3 | [**Order of Operations**](http://www.wallace.ccfaculty.org/book/0.3%20Order%20of%20Operations.pdf) | Evaluate expressions using the order of operations | **Teach:** Workbook examples A-C * In-class problems for students: Worksheet: 1-6

Workbook examples D-E* In-class problems for students: Worksheet: 7-15  odd
 | Myopenmath* Video problems
* Practice problems

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| 4.  | 0.4 | [**Properties of Algebra**](http://www.wallace.ccfaculty.org/book/0.4%20Properties%20of%20Algebra.pdf) | Simplify algebraic expressions by substituting given values, distributing, and combining like terms | **Teach:**Workbook examples A -EWorksheet #6 * In-class problems for students:

Worksheet: 1, 3, 5, 10 13 & 18Workbook examples F Worksheet # 28, 30* In-class problems for students:

Worksheet: 19-31 odd | Myopenmath* Video problems
* Practice problems

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| 5. | 1.1 | [**One-Step Equations**](http://www.wallace.ccfaculty.org/book/1.1%20One-Step%20Equations.pdf) | Solve one step linear equations by balancing using inverse operations | **Teach:**Workbook examples A- F* In-class problems for students:

Worksheet: 1- 15 odd | Myopenmath* Video problems
* Practice problems

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| 6. | 1.2 | [**Two-Step Equations**](http://www.wallace.ccfaculty.org/book/1.2%20Two-Step%20Equations.pdf) | Solve two-step equations by balancing and using inverse operations | **Teach:**Workbook examples A- C and worksheet #8 & 10* In-class problems for students:

Worksheet: 1-9 oddWorkbook examples DWorksheet #12, 14* In-class problems for students:

Worksheet: 11, 13, 15 | Myopenmath* Video problems
* Practice problems

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| 7. | 1.3 | [**General Linear Equations**](http://www.wallace.ccfaculty.org/book/1.3%20General%20Linear%20Equations.pdf) | Solve general linear equations with variables on both sidesUse the solution of an equation to classify the equation as either a conditional equation, an identity, or a contradiction | **Teach:** Workbook examples A, B * In-class problems for students: Worksheet: 1-7

Workbook examples C, D* In-class problems for students: Worksheet: 8-10
 | Myopenmath* Video problems
* Practice problems

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| 8.   | 1.4 | [**Solving with Fractions**](http://www.wallace.ccfaculty.org/book/1.4%20Fractions.pdf) | Solve linear equations with rational coefficients by multiplying by the least common denominator to clear the fractions | **Teach:** Workbook examples A, B, C* In-class problems for students: Worksheet: 1, 2, 4, 7, 9-11

Workbook example D* In-class problems for students: Worksheet: 3, 5, 6, 8
 | Myopenmath* Video problems
* Practice problems

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| 9.  | 1.5 | [**Formulas**](http://www.wallace.ccfaculty.org/book/1.5%20Formulas.pdf) | Solve linear formulas for a specific variable | **Teach:** Workbook examples A-D, F * In-class problems for students: Worksheet: 1-9, 11

Workbook example E* In-class problems for students: Worksheet: 10, 12
 | Myopenmath* Video problems
* Practice problems

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| 10.  | 1.8 | [**Application: Number/Geometry**](http://www.wallace.ccfaculty.org/book/1.8%20Number%20and%20Geometry.pdf) | Solve number and geometry problems by creating and solving a linear equation | **Teach:**Workbook examples A- C &worksheet #8 & 10* In-class problems for students:

Worksheet: 1- 11 oddWorkbook examples D-F* In-class problems for students:

Worksheet: 1, 3, 5, and 9 | Myopenmath* Video problems
* Practice problems

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| 11.  | 1.9 | **Other Applications** | Set up a linear equation to solve age, commission, sales tax, and discount problems | **Teach:**Workbook examples Aworksheet # 2* In-class problems for students:

Worksheet: 1Workbook examples B-Cworksheet # 4* In-class problems for students:

Worksheet: 3, 5Workbook examples D-Eworksheet # 10, 12* In-class problems for students:

Worksheet: 7, 9, 11 | Myopenmath* Video problems
* Practice problems

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| 12. | 3.1 | [**Solve and Graph Inequalities**](http://www.wallace.ccfaculty.org/book/3.1%20Simple%20Inequalities.pdf) | Solve, graph, and give interval notation for the solution to linear inequalities | **Teach:** Workbook examples A-C* In-class problems for students:

Worksheet: 1,3,7,9Workbook examples D, FWorksheet # 16* In-class problems for students:

Worksheet: 11, 13, 15, 17 | Myopenmath* Video problems
* Practice problems

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| 13. | 2.1 | [**Points and Lines**](http://www.wallace.ccfaculty.org/book/2.1%20Points%20and%20Lines.pdf) | Graph points and linear equations by finding and plotting ordered pair solutions using xy coordinates. | Teach: Workbook example A* In-class problems for students:

Worksheet: 1, 4, 7, 10, 13, 18, 19, 21Workbook example B, C* In-class problems for students: Worksheet: 1-9 odd
 | Myopenmath* Video problems
* Practice problems

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| 14. | 2.2 | [**Slope**](http://www.wallace.ccfaculty.org/book/2.2%20Slope.pdf) | Find the slope of a line given a graph or two points | Teach: Workbook example A* In-class problems for students:

Worksheet: 1, 2Workbook example B* In-class problems for students: Worksheet: 4, 5, 6

Workbook example C* In-class problems for students: Worksheet: 10-14
 | Myopenmath* Video problems
* Practice problems

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| 15.  | 2.3 | [**Slope-Intercept Form**](http://www.wallace.ccfaculty.org/book/2.3%20Slope%20Intercept.pdf) | Write the equation of a line using slope intercept form | **Teach:** Workbook example A* In-class problems for students: Worksheet: 1, 2

Workbook examples B, C * In-class problems for students: Worksheet: 4, 5, 6, 7, 8

Workbook example D* In-class problems for students: Worksheet: 11-14
 | Myopenmath* Video problems
* Practice problems

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| 16.  | 2.4 | [**Point-Slope Form**](http://www.wallace.ccfaculty.org/book/2.3%20Slope%20Intercept.pdf) | Give the equation of a line with a known slope and point | **Teach:** Workbook example A* In-class problems for students: Worksheet: 1-5 odd

Workbook examples B, C, D* In-class problems for students: Worksheet: 6-10 even
 | Myopenmath* Video problems
* Practice problems

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| 17.  | 2.5 | **Parallel & Perpendicular Lines** | Write an equation of a line given a parallel or perpendicular line | **Teach:** Workbook example A, B* In-class problems for students: Worksheet: 1-9 odd

Workbook examples C, D, E* In-class problems for students: Worksheet: 13-21 odd
 | Myopenmath* Video problems
* Practice problems

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| 18.  | 4.1 | [**Graphing**](http://www.wallace.ccfaculty.org/book/4.1%20Graphing%20Systems.pdf) | Solve systems of equations by graphing and identifying the point of intersection | **Teach:** Workbook example A, B* In-class problems for students: Worksheet: 1-3

Workbook examples C-F* In-class problems for students: Worksheet: 4, 6, 8
 | Myopenmath* Video problems
* Practice problems

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| 29. | 4.2 | [**Substitution**](http://www.wallace.ccfaculty.org/book/4.2%20Substitution.pdf) | Solve systems of equations using substitution | **Teach:** Workbook example A, B* In-class problems for students: Worksheet: 1, 3, 4

Workbook examples C* In-class problems for students: Worksheet: 5, 6
 | Myopenmath* Video problems
* Practice problems

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| 20. | 4.3 | [**Addition/Elimination**](http://www.wallace.ccfaculty.org/book/4.3%20Elimination.pdf) | Solve systems of equations using the addition/elimination method | **Teach:** Workbook example A* In-class problems for students: Worksheet: 1, 2

Workbook examples B, C, D* In-class problems for students: Worksheet: 3, 4, 5, 7
 | Myopenmath* Video problems
* Practice problems

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| 21. | 4.5 | [**Application: Value Problems**](http://www.wallace.ccfaculty.org/book/4.6%20%20Mixture.pdf) | Solve value problems by setting up a system of equations | **Teach:** Workbook examples A, B* In-class problems for students: Worksheet: 1, 2, 3, 5
 | Myopenmath* Video problems
* Practice problems

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| 22.  | 4.6 | [**Application: Mixture Problems**](http://www.wallace.ccfaculty.org/book/4.6%20%20Mixture.pdf) | Solve mixture problems by setting up a system of equations | **Teach:** Workbook examples A, B* In-class problems for students: Worksheet: 1, 2, 3, 4
 | Myopenmath* Video problems
* Practice problems

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| 23.  | 5.1 | [**Exponent Properties**](http://www.wallace.ccfaculty.org/book/5.1%20Exponents.pdf) | Simplify expressions using the properties of exponents | **Teach**: Workbook examples A-D* In-class problems for students:

Worksheet: 1, 3, 5Workbook examples E-G* In-class problems for students:

Worksheet: 7,9,11Workbook examples H-K* In-class problems for students:

Worksheet: 13, 15, 17, 20Workbook examples L,M,O,P* In-class problems for students:

Worksheet: 21,23,24,25 | Myopenmath* Video problems
* Practice problems

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| 24.  | 5.2 | [**Negative Exponents**](http://www.wallace.ccfaculty.org/book/5.2%20Negative%20Exponents.pdf) | Simplify expressions with negative exponents using the properties of exponents | **Teach:** Workbook examples A-F* In-class problems for students: Worksheet: 1-7

Workbook examples G, H* In-class problems for students: Worksheet: 8-15
 | Myopenmath* Video problems
* Practice problems

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| 25.  | 5.3 | [**Scientific Notation**](http://www.wallace.ccfaculty.org/book/5.3%20Scientific%20Notation.pdf) | Multiply and divide expressions using scientific notation and exponent properties | **Teach:** Workbook example A, B, E, F* In-class problems for students: Worksheet: 1-11 odd

Workbook examples I, J* In-class problems for students: Worksheet: 13, 15
 | Myopenmath* Video problems
* Practice problems

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| 26. | 5.4 | [**Introduction to Polynomials**](http://www.wallace.ccfaculty.org/book/5.4%20Add%20Polynomials.pdf) | Evaluate, add, and subtract polynomials | **Teach:** Workbook example A, B, C* In-class problems for students: Worksheet: 1, 2

Workbook examples D, E* In-class problems for students: Worksheet: 3, 4, 6, 7, 8
 | Myopenmath* Video problems
* Practice problems

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| 27. | 5.5 | [**Multiply Polynomials**](http://www.wallace.ccfaculty.org/book/5.5%20Multiply%20Polynomials.pdf) | Multiply polynomials | **Teach:**Workbook example A* In-class problems for students:

Worksheet: 1, 3Workbook examples B, C* In-class problems for students: Worksheet 5, 7, 8

Workbook examples E* In-class problems for students: Worksheet: 9, 11, 13, 14, 16
 | Myopenmath* Video problems
* Practice problems

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| 28. | 5.6 | [**Multiply Special Products**](http://www.wallace.ccfaculty.org/book/5.6%20Multiply%20Special%20Products.pdf) | Recognize and use special product rules of a sum and difference and perfect squares to multiply polynomials | **Teach:**Workbook examples A, C* In-class problems for students:

Worksheet: 1-7 oddWorkbook examples D, F, G* In-class problems for students: Worksheet 9-17 odd
 | Myopenmath* Video problems
* Practice problems

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| 29.  | 5.7 | [**Divide Polynomials**](http://www.wallace.ccfaculty.org/book/5.7%20Divide%20Polynomials.pdf) | Divide polynomials using long division | **Teach:** Workbook examples A, C, E* In-class problems for students:

Worksheet: 1, 4, 5Workbook examples F, G, H* In-class problems for students:

Worksheet: 7, 9, 11, 13 | Myopenmath* Video problems
* Practice problems

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