

TITLE OF LESSON

Algebra 1 Unit 1 Lesson 26 – Monomials, Polynomials, Coefficients, and the Degree of a Polynomial
You Do Speak Math: Creation of the Individual

TIME ESTIMATE FOR THIS LESSON

One class period

ALIGNMENT WITH STANDARDS

California – Algebra 1:

10.0 Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques.

MATERIALS

25 Questions (teacher created), whether on the board or on handouts

LESSON OBJECTIVES

- To introduce the monomial, coefficient and the degree of a polynomial
 - To become more comfortable with doing symbolic mathematics
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EXPLANATION OF LESSON

We will introduce the concepts of the monomial, polynomial, coefficient, and the degree of a polynomial. We will practice building polynomials from monomials and we will practice determining the degree of a polynomial.

Students will be focused and motivated if they see the discussion and mathematical manipulation of equations as something they already do and something that is relevant to their lives. It is important that we continually draw from the student's experiences and relate the results of the algebraic calculations back to them. The strongest deterrent from using math is usually the sense that it is irrelevant, abstract and meaningless. Anything we can do to counter these unfounded assertions will benefit the students. Students typically learn these ideas because math is presented to them in irrelevance abstract and meaningless manners. We want algebra to be seen as part of their lives.

FOCUS AND MOTIVATE STUDENTS

- 1) Homework Check – Collect complete homework assignments. Pass back graded assignments and have students place in folders.
 - 2) [Agenda](#) – Have students copy the agenda you posted.
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ACTIVITIES – INDIVIDUAL AND GROUP

1. Monomial and Coefficient – Introduce the concept of a monomial and the coefficient. We have already used this form so the concept is not really new. This will be a good opportunity to allow the students to discover that they already know something. Bring back in the examples from the earlier classes on variables.
2. Polynomial – Introduce the concept of the polynomial.
3. Group Polynomials – Have the class divide into groups of three. Have each member of the group come up with one term of a polynomial. Have the group add their terms together to form a polynomial.
4. Everyday Examples – Elicit examples of polynomials from the class. Look for polynomials in art, music etc.

5. Degree of Polynomial – Introduce the idea of the degree of a polynomial.
 6. Everyday Examples – Give lots of examples and ask the class to tell you the degree of the polynomial.
 7. Homework Review – Assign 25 problems consisting of a.) Identifying monomials or polynomials b.) Forming polynomials from monomials c.) Determining the degree of a polynomial. You will need to create these prior to class.
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HOMEWORK

Answer 25 assigned questions.

GROUP ROLES

Students will be working individually during this class period, unless a student needs help.

DOCUMENTATION FOR PORTFOLIO

None