

Date:

Title:

(A) Lesson Objectives:

- a. Review the meaning of negative and zero exponents.
- b. Practice working with negative and zero exponents.
- c. Investigate several applications of exponents.

(B) Investigations for Classwork: Zero Exponents:

<http://www.teacherweb.com/NY/Arlington/AlgebraProject/U6L2ZeroandNegativeExponents.pdf> , Ex1,2

(C) Investigations for Classwork: Negative Exponents:

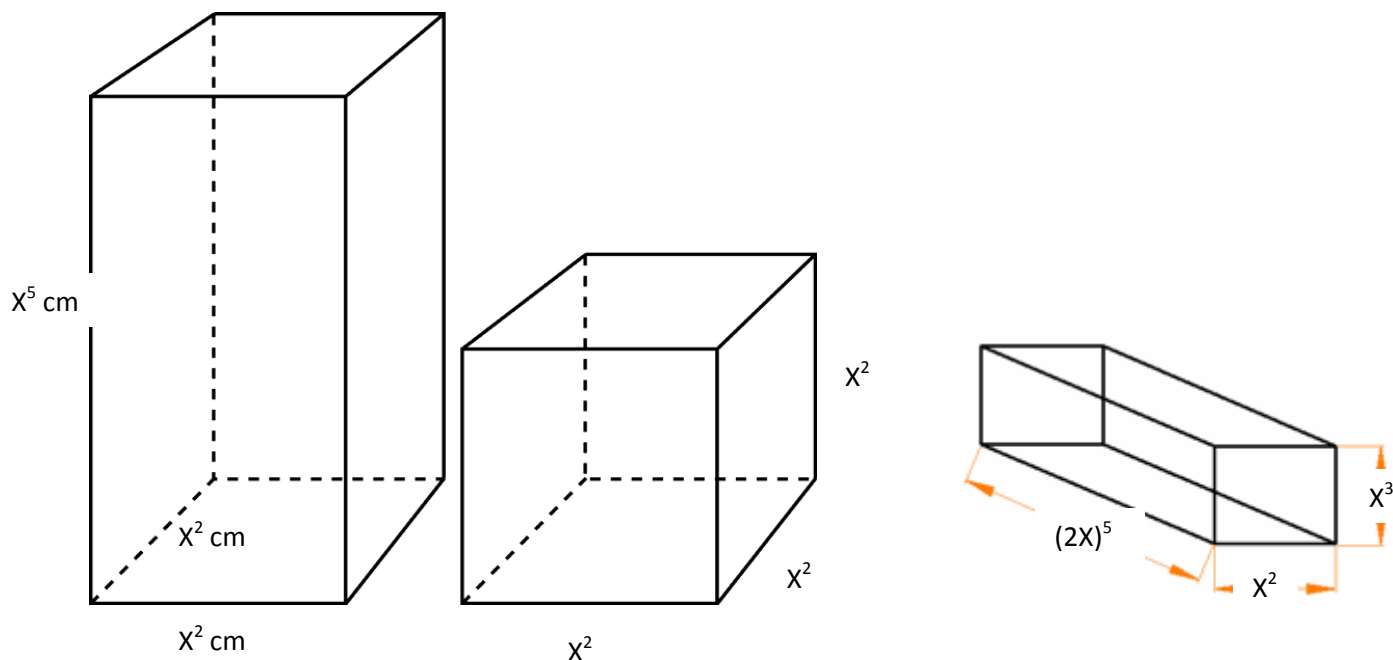
<http://www.teacherweb.com/NY/Arlington/AlgebraProject/U6L2ZeroandNegativeExponents.pdf> , Ex3,4,5

(D) Algebraic Examples – In Class

<http://www.teacherweb.com/NY/Arlington/AlgebraProject/U6L2ZeroandNegativeExponents.pdf> , Q7,8 & p3,4

(E) Applications of Exponents

- a. Volume of Rectangular Prisms: The volume of a rectangular prism is determined by $V = lwh$



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b. Scientific Notation

- i. Rewrite 100 as multiples of 10: _____.
- ii. Rewrite 10,000 as multiples of 10: _____.
- iii. Rewrite 40,000 as multiples of 10: _____.
- iv. Rewrite 43,000 as multiples of 10: _____.
- v. Rewrite 1,000 as multiples of 10: _____.
- vi. Rewrite 10,000,000 as multiples of 10: _____.
- vii. Rewrite 100,000,000,000 as multiples of 10: _____.
- viii. Rewrite 0.0001 as multiples of 0.1 : _____.
- ix. Rewrite 0.01 as multiples of 0.1: _____.
- x. Rewrite 0.1 as multiples of 0.1: _____.
- xi. Rewrite 0.00000001 as multiples of 0.1: _____.

c. Fermi Questions

- i. How many marbles would it take to completely fill Mr S's class room?

(F) Homework/Resources

- **HW: from Textbook** →
- Video help from OnlineMathLearning with inequalities:
 - o <http://www.onlinemathlearning.com/exponent-3.html>
- Reading from PurpleMath → <http://www.purplemath.com/modules/exponent.htm>