

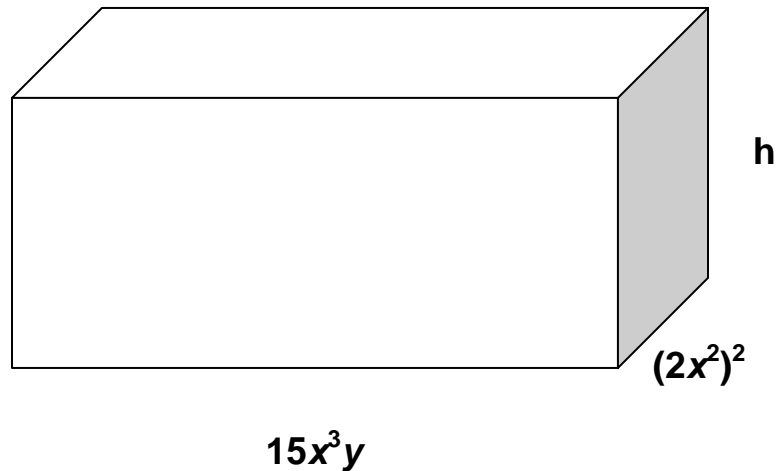
PROBLEM-OF-THE-DAY: ALGEBRA 1**WEEK:** February 19 to February 22**Day:** Thursday

RISD Objective: Given a problem which involves exponential operations, students will be able to apply exponent rules to simplify the expression.

PROBLEM #107

The volume of a rectangular prism can be found by the formula: $V = lwh$

Using the figure, find the algebraic expression for the height if the $V = 300x^9y^4$



MODEL SOLUTION #107

$$300x^9y^4 = (15x^3y)(2x^2)^2(h)$$

$$300x^9y^4 = (15x^3y)(4x^4)(h)$$

$$300x^9y^4 = (60x^7y)(h)$$

$$\frac{300x^9y^4}{60x^7y} = h$$

$$\mathbf{5x^2y^3 = h}$$