



Mathematics 52

Handout 1

Fall 2016

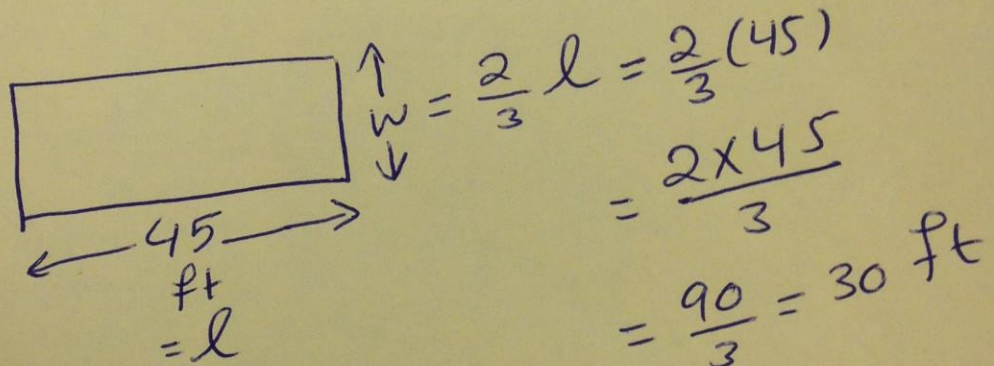
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Course ID: (27488) and (27501)

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Note: This handout covers some problems from the introduction to basic algebra.

Problem 1: David rented a rectangular mobile house of length 45 ft and the width of the mobile house is two-third of its length. Find the area of David's mobile house.



Area = length  $\times$  Width

=  $l \times w$

=  $45 \times 30$

=  $1350 \text{ ft}^2$

$$\begin{array}{r}
 1 \\
 45 \\
 \times 30 \\
 \hline
 00 \\
 1350 \\
 \hline
 1350
 \end{array}$$

**Problem 2:** Translate each of following English phrases to the math language (**algebraic expression**)

**Part a:** Nine added to two divided by some number.

Assume that  $x$  is some number, then

$$9 + \frac{2}{x} \quad \text{or} \quad (9) + \left(\frac{2}{x}\right)$$

**Part b:** Three more than two multiplied by some number,  $x$ , added to nine divided by some number,  $y$ .

$$3 + 2x + \frac{9}{y}$$

$$\text{or} \quad (3) + (2x) + \left(\frac{9}{y}\right)$$

**Part c:** Twenty-three percent of some number,  $\varphi$  increased by nine of some number,  $\beta$

$$23\% \cdot \varphi + 9\beta$$

$$\text{or} \quad 0.23\varphi + 9\beta \quad \text{or} \quad \frac{23}{100}\varphi + 9\beta$$

**Part d:** Seventy subtracted from some number,  $\mu$  added to five-times some number,  $\alpha$

$$(70 - \mu) + (5\alpha)$$

