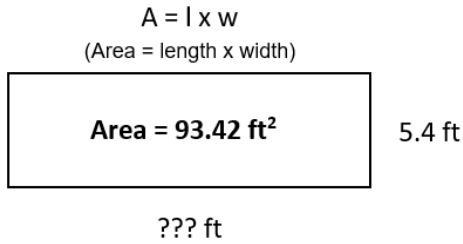**Name:** _____   **Date:** _____

Moving Things Around

Diagnostic Assessment

Look at the diagram and answer the following question.

A = l x w
(Area = length x width)

Area = 93.42 ft²   5.4 ft

??? ft

James is given the area of the following rectangle as 93.42 ft² and a width of 5.4 ft. How can he use the formula for calculating the area of a rectangle and the given information to find the length of the rectangle? What is the length of the rectangle?

Name: _____   **Date:** _____

Moving Things Around

Delivery Trucks – Part 1

Directions: Use the following scenario to answer the questions in Part 1 and 2.

A company uses two different-sized trucks to deliver sand. The first truck can transport x cubic yards and the second y cubic yards. The first truck makes S trips to a job site, while the second makes T trips.

1. What quantities do the following expressions represent in terms of the problem's context?

   a. $S + T$

   b. $x + y$

Delivery Trucks – Part 2

2. What quantities do the following expressions represent in terms of the problems context?

   c. $xS + yT$

   d. $\dfrac{xS + yT}{S + T}$

Name: _____   **Date:** _____

Moving Things Around

Formative Assessment

The area of a particular triangle is 30m^2. If the base length of that triangle is 15m, what is the height of that triangle?

$$A = \frac{1}{2}bh$$

    a. Using the formula above, solve for h.

    b. Using the equation you created and the information given, solve for the height of the triangle.