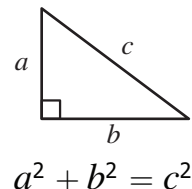
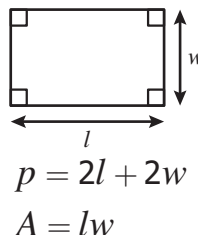
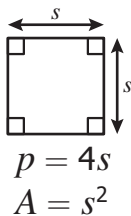
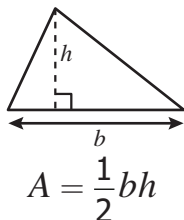


# Algebra I Formula Sheet

## 2009 Mathematics Standards of Learning

### Geometric Formulas:



### Quadratic Formula:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}, \text{ where } ax^2 + bx + c = 0 \text{ and } a \neq 0$$

### Statistics Formulas:

Given:

$x$  represents an element of the data set,

$x_i$  represents the  $i^{\text{th}}$  element of the data set,

$n$  represents the number of elements in the data set,

$\mu$  represents the mean of the data set, and

$\sigma$  represents the standard deviation of the data set.

$$\text{variance } (\sigma^2) = \frac{\sum_{i=1}^n (x_i - \mu)^2}{n}$$

$$\text{standard deviation } (\sigma) = \sqrt{\frac{\sum_{i=1}^n (x_i - \mu)^2}{n}}$$

$$\text{mean absolute deviation} = \frac{\sum_{i=1}^n |x_i - \mu|}{n}$$

$$\text{z-score } (z) = \frac{x - \mu}{\sigma}$$