Name: Date: Period:

PLEASE DON'T SQUEEZE!! Solve ALL problems ALGEBRAICALLY using the template to set up.

| **DEFINE your Variable(s)** | **Write your Equation then solve it** | **Statement/Sentence** |

1.   The length of a rectangle is 2 times its width. The area of the rectangle is 72 sq. cm. Find the dimensions of the rectangle.

2.   Find two consecutive integers such that the sum of their squares is 61.

3.   The ratio of the measures of the base and height of a parallelogram is 3:4. The area of the parallelogram is 1200 sq. cm. Find the measure of the base and the height of the parallelogram.

4.   Find two consecutive negative integers such that the product is 42.

5.   The length of a rectangle is 3 times its width. If the width is diminished by 1 meter and the length is increased by 3 meters, the area of the rectangle that is formed is 72 meters squared. Find the dimensions of the original rectangle.

6.   The larger of 2 integers is 5 more than twice the smaller integer. The product of the integers is 52. Find the integers.

7.   The measure of one leg of a right triangle exceeds the measure of the other leg by 7 meters. The hypotenuse of the triangle is 13 meters. Find the measurements of the legs.

8.   The ages of 3 children in a family can be expressed as consecutive integers. The square of the age of the youngest child is 4 more than 8 times the age of the oldest child. Find the ages of the three children.

9.   In a trapezoid, the smaller base is 3 more than the height. The larger base is 5 less than 3 times the height and the area is 45 sq. cm. Find the height of the trapezoid.

10. Find two positive integers whose ratio is 2:3 and whose product is 600.