

Starts: Thursday 9/5**Ends: Friday 9/13**

25 points

Name: _____ Period: _____

THIS IS AN ANSWER SHEET ONLY

Please clearly show your work on a separate piece of paper and attach it to this sheet.
You will only write your answers in the spaces provided below.

REMINDER: Do your best to set up some kind of **equation** to solve these problems. Guessing and checking can be a useful tool but this class is focused on using **Algebra** to solve problems. ☺

1. The width of a rectangle is 1 cm more than half the length. When both the length and width are increased by 1 cm, the area increases by 20 cm^2 . Find the original dimensions of the rectangle.

2. The measure of a supplement of an angle is four times the measure of a complement.
Find the measure of the angle.

Hint: Complementary angles add up to 90° and supplementary angles add up to 180° .

3. At Whole Foods, dried apple slices that cost \$1.80/lb are mixed with dried banana slices that cost \$2.10/lb. If the mixture weighs 5 lb and costs \$1.92/lb, how many pounds of apple slices were used?

4. A bank teller needs to pay out \$75 using \$5 bills and \$20 bills. Find **all** possibilities for the number of each type of bill the teller could use.

5. A bag contains twice as many pennies as nickels and four more dimes than quarters. Find **all** possibilities for the number of each coin if their total value is \$2.01.

6. A certain quadrilateral has three sides of equal length and its perimeter is 19 cm. Find **all** integral possibilities for the lengths of the of the sides in centimeters. (Integral means answers must be integers)

Hint: The sum of the lengths of any three sides of a quadrilateral must exceed the length of the fourth side.