Algebra 2 Name: _____

**Introduction to Linear Systems of Equations**

**Directions:** Today we are going to investigate how to solve a linear system of equation by finding the answer to some puzzles about coins. You may work with a partner to determine the answer to each of the puzzles below. See me to determine if you answer is correct.

**RIDDLE 1**

**Nickels:** _____ **Dimes:** _____

**RIDDLE 2**

**Quarters:** _____ **Nickels:** _____

**RIDDLE 3**

**Pennies:**_____ **Dimes:**_____

**RIDDLE 4**

**Quarters:** _____ **Dimes:** _____

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**RIDDLE 1:**

Seventeen coins are what's in this cup.
Better believe me 'cause that's what's up.

There's no peeking or you'll never learn.
Wait 'til the end when it's your turn.

A dollar thirty is the total inside.
That's the truth, I've never lied.

So how many nickels and how many dimes?
Figure it out. I've got no more rhymes.

**RIDDLE 2:**

Quarters and nickels, a total of fourteen.
How many of each, without being seen?

The value of two-ten is right in this cup.
You will find the answer, a certain cheer up.

Make a table, a graph, an equation will do.
Give it a try and learn something new.

It's a challenge I know, but don't give up hope.
The answer is obtainable and within your scope.

## RIDDLE 3:

In this cup are twenty-one dimes and pennies.
Finding the solution will produce some hollas!

The question is how many of each coin inside,
That the creative instructor has so graciously supplied.

One Dollar and twenty-nine cents doesn't buy much these days,
But in this cup is where that total lays.

Don't look inside, that is called cheating
It's with your intelligence that you are competing

## RIDDLE 4:

It's a mystery what's inside this container.
But you won't look, you're not a complainer.

Seventeen coins, that is a hint from me to you.
Quarters and dimes, some old and some new.

The total inside is $2.15.
Get busy on this problem, come on it's nifty.

You are smarter than you think, you've got the knowledge
To solve problems like this and then go to college