

Show Me the Money!!!

Overview: This activity can be used with the entire class or for individual groups/students.

Purpose: Reinforce systems of equations, which students should have already learned.

Materials:

- + Tin can or other storage container that is not transparent
- + 25 nickels, 15 dimes...\$2.75

Implementation:

1. Put the change in the tin can, and cover the top somehow.
2. After telling the students that there are only **nickels and dimes** in the container, have students pass the change around. Let them feel it, shake it, examine it. Have students write down a guess for how many coins are in the can.
3. Make a big deal when someone finally guesses the right answer (40).
4. Now have students guess how much money is in the tin can. If you wish, have them make offers to “buy” it!
5. Again, make a big deal when someone guesses the correct answer (\$2.75), and tease those that were willing to pay way too much...lovingly, of course!
6. Ask students to figure out how many nickels and how many dimes are in the container. They should use this system of equations:
$$\begin{cases} n + d = 40 \\ 5n + 10d = 275 \end{cases}$$
7. After students have finish, open the container and reveal the answer!
8. Have a group or student who was able to correctly solve the equation put their answer on the board. Also have someone who made a common mistake put theirs on the board. Have students discuss why one is correct and identify where the other group/student made a mistake.