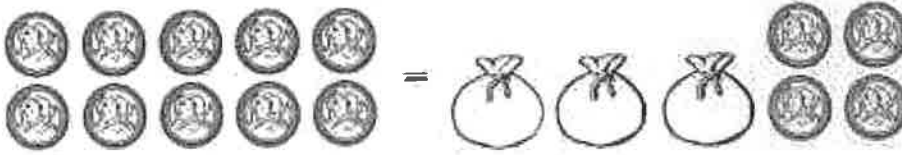## Problem 3.2 Exploring Equality

How many gold coins are in each pouch? Show your steps so that someone else could follow them.
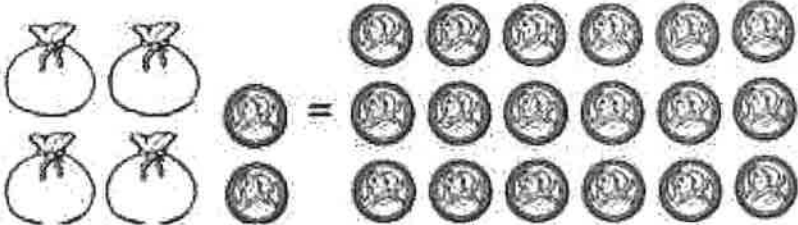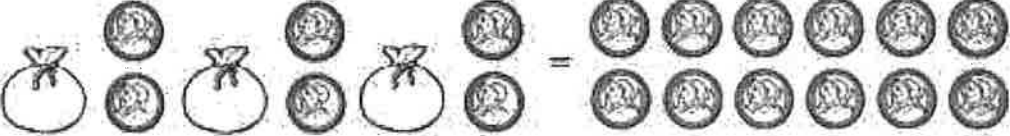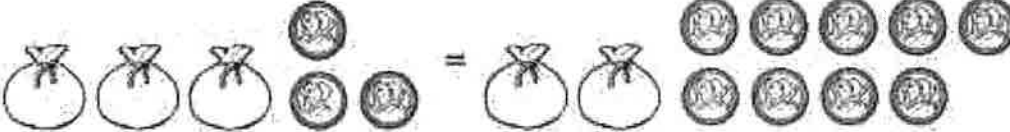
1.

2.

3. How can you check your answer? That is, how do you know you found the correct number of gold coins in each pouch?

4. How did you maintain equality at each step?

Because the number of gold coins in each pouch is unknown, we can let *x* represent the number of gold coins in one pouch and use numbers to represent the number of coins. For each problem:
- Write an equation to represent the situation.
- Use the equation to find the number of gold coins in each pouch.

Manipulatives	Symbolic
1.	Equation:
2.	Equation:
3.	Equation:

For each equation below, solve them using your ideas from the problems above. Check your answer.

4. $30 = 6 + 4x$

5. $7x + 2 = 12 + 5x$

6. Describe a general method for solving equation using what you know about equality.