

# Problem Solving: Act It Out and Use Reasoning

Izzie has 12 coins. Four of the coins are quarters. He has 2 more dimes than nickels. How many of each coin does he have?

You can use logical reasoning to find the answer. You may be able to determine information that is not told.

What do I know?	What do I need to find out?	What can I determine from the information?
Izzie has 12 coins. 4 of the coins are quarters. Izzie has 2 more dimes than nickels.	How many dimes does Izzie have? How many nickels does Izzie have?	If 4 of the 12 coins are quarters, Izzie has a total of 8 dimes and nickels.

You can act it out to find how many dimes and nickels Izzie has.

Take 8 two-color counters. Find combinations so that one color will have 2 more than the other. If you try 4 and 4, the difference is 0, so try 5 and 3. It works.



So, Izzie has 4 quarters, 5 dimes, and 3 nickels.

Solve. Find the number of each kind of object in the collection.

## 1. Kim's Music Video Collection

13 videos in all  
 4 concert videos  
 3 more rap videos than pop videos

Concert videos =

Rap videos =

Pop videos =

## 2. Molly's Art Collection

5 paintings  
 3 more sculptures than mosaics  
 16 pieces in all

Paintings =

Sculptures =

Mosaics =