

MY Homework**Lesson 7****Problem Solving:
Make an
Organized List****Homework Helper**Need help? connectED.mcgraw-hill.com

Harold, Nina, Adam, and Rachel sit at the same table.
Students must go to the drinking fountain in groups of 3.
What possible combinations of these students can go to the drinking fountain together?

1 Understand**What facts do you know?**

Harold, Nina, Adam, and Rachel sit together.
Students go to the drinking fountain in groups of 3.

What do you need to find?

the possible combinations of students that could go to the drinking fountain together

2 Plan

I will make an organized list of the possible combinations.

3 Solve

I will list the students in different groups of 3.
So, there are four possible combinations of students who can go to the drinking fountain together.

Harold, Nina, Adam

Nina, Adam, Rachel

Harold, Adam, Rachel

Harold, Nina, Rachel

4 Check**Does the answer make sense?**

Checking my list, I see that each student's name is listed the same number of times, and one is left out each time.
So, the answer is reasonable.



Problem Solving

Solve each problem by making an organized list.

- Paul needs 34 cents. He has only dimes and pennies. How many ways can he make 34 cents using both kinds of coin? Explain.

3 ways: 1 dime and 24 pennies; 2 dimes and

14 pennies; 3 dimes and 4 pennies

- Camille rides a bus to work. To get downtown, she can ride any bus number between 11 and 34, that can be divided evenly by 3, and is an even number. Which numbers are the buses that Camille could ride to work?


12, 18, 24, and 30

- Bruce is grocery shopping. He can go to the deli, the bakery, and the dairy section in any order. How many possibilities are there for the order in which Bruce can do his shopping?

6 possibilities

- Flora has 5 boxes that increase in size. In the first box she packs 4 books. In each box after that, she pack 3 more books than the box before. How many books does Flora pack in the last box?

16 books

- Mathematical PRACTICE**  **Justify Conclusions** A mouse makes itself a new nest every 2 weeks. It uses 8 large leaves to line each nest. How many leaves will the mouse have used after 6 weeks? Explain.

24 leaves; 2 weeks, 8 leaves; 4 weeks,

$8 + 8 = 16$ leaves; 6 weeks, $16 + 8 = 24$ leaves

My Work!

- 3. deli, bakery, dairy; deli, dairy, bakery; bakery, dairy, deli; bakery, deli, dairy; dairy, bakery, deli; dairy, deli, bakery**

4.

Box Number	Number of Books
1	4
2	7
3	10
4	13
5	16