

## **MULTIPLICATION, MEASUREMENT DIVISION, AND**

## **PARTITIVE DIVISION PROBLEMS**

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Multiplication

Megan has 5 bags of cookies. There are 3 cookies in each bag. How many cookies does Megan have altogether?

Measurement Division

Meagan has 15 cookies. She puts 3 cookies in each bag. How many bags can she fill?

Partitive Division

Megan has 5 bags of cookies. Altogether she has 15 cookies. There are the same number of cookies in each bag. How many cookies are in each bag?

## Direct Modeling Strategies for Grouping and Partitioning Problems

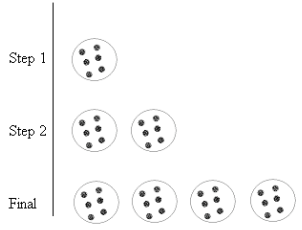
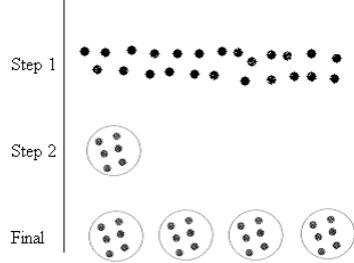
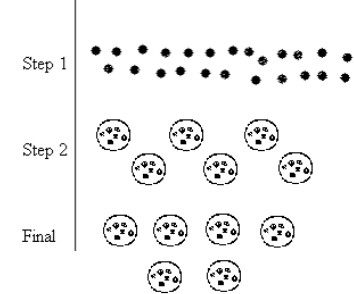
Problem Type	Problem	Solution Process	Sets Constructed
Multiplication	Bart has 4 boxes of pencils. there are 6 pencils in each box. How many pencils does Bart have altogether?	Make 4 groups with 6 counters in each group. Count the total number of counters to find the answer.	
Measurement Division	Bart has 24 pencils. They are packed 6 pencils to a box. How many boxes of pencils does he have?	Put 24 counters into groups with 6 counters in each group. Count the number of groups to find the answer.	
Partitive Division	Bart has 6 boxes of pencils with the same number of pencils in each box. Altogether, he has 24 pencils. How many pencils are in each box?	Divide 24 counters into 6 groups with the same number of counters in each group to find the answer.	

Figure 4. Rate, Price, and Scaler Multiple Problems

Problem	Multiplication	Measurement Division	Partitive Division
Grouping/Partitioning	Gene has 4 tomato plants. There are 6 tomatoes on each plant. How many tomatoes are there altogether?	Gene has some tomato plants. There are 6 tomatoes on each plant. Altogether there are 24 tomatoes Howm many tomato plants does Gene have?	Gene has 4 tomato plants. There are the same number of tomatoes on each plant. Altogether there are 20 tomatoes. How many tomatoes are there on each tomato plant?
Rate	Ellen walks 3 miles an hour. How many miles does she walk in 5 hours?	Ellen walks 3 miles an hour. How many hours will it take her to walk 15 miles?	Ellen walked 15 miles. It took her 5 hours. If she walked the same speed the whole way, how far did she walk in one hour?
Price	Pies cost \$4 each. How much do 7 pies cost?	Pies cost \$4 each. How many pies can you buy for \$28?	Jan bought 7 pies. He spent a total of \$28. If each pie costs the same amount, houw much does one pie cost?
Scaler Multiple	The giraffe in the zoo is 3 times as tall as the kangaroo. The kangaroo is 6 feet tall. How tall is the giraffe?	The giraffe is 18 feet tall. The kangaroo is 6 feet tall. The giraffe is how many times taller than the kangaroo?	The giraffe is 18 feet tall. She is 3 times as tall as the kangaroo. How tall is the kangaroo?