Problem Solving: Draw a Picture and Write an Equation

Draw a picture and write an equation.

Step 1:
Read and Understand

Janie is in the fourth row of the marching band. There are 7 rows of musicians with 8 in each row. How many musicians are ahead of Janie? How many musicians are behind Janie?

You need to find how many are ahead of Janie and behind Janie.

Step 2:
Plan and Solve

You can draw a picture of the musicians: Write an A for each musician ahead of Janie, a B for each musician behind Janie, and a J for each musician in Janie's row.

Solve
A A A A A A A A ⎫
A A A A A A A A ⎬ 24
A A A A A A A A ⎭
J J J J J J J J } 8
B B B B B B B B ⎫
B B B B B B B B ⎬ 24
B B B B B B B B ⎭

Step 3:
Look Back and Check

How many musicians are there ahead of Janie?
You can multiply.
$3 \times 8 = a$
$3 \times 8 = 24$

There are 24 musicians ahead of Janie.

How many musicians are behind Janie?
You can multiply.
$3 \times 8 = b$
$3 \times 8 = 24$

There are 24 musicians behind Janie.

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1. James has 12 seashells mounted in a row. The 6 shells in the center of the row are nautilus shells. Is there the same number of shells on either side of the nautilus shells? Draw a picture to help you solve the problem.

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