

Problem Solving: Draw a Picture and Write an Equation

Travis earned 3 stickers for each song he played in his piano lesson. He received a total of 24 stickers. How many songs did he play?

You can solve a problem like this by drawing a picture and writing an equation.

Step 1. Write out what you already know.
Travis earned 3 stickers for each song he played. Travis had 24 stickers at the end of the lesson.

Step 2. Draw a picture to show what you know.

Step 3. Write out what you are trying to find.
How many songs did Travis play?

Step 4. Write an equation from your drawing.
Since you are dividing Travis's total stickers into groups of 3 (stickers earned per song), this is a division problem.

$$24 \div 3 = s \quad s = \text{number of songs Travis played}$$

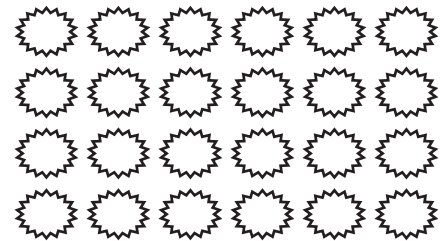
Step 5. Solve the equation.

$$24 \div 3 = 8 \quad s = 8$$

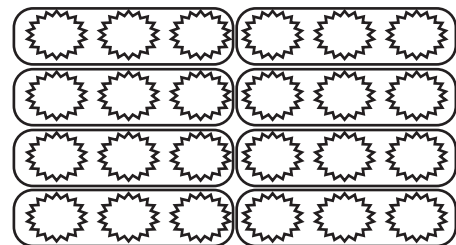
So, Travis played 8 songs during his lesson.

Step 6. Check your answer by working backward.

$$8 \times 3 = 24: \text{ your answer is correct.}$$



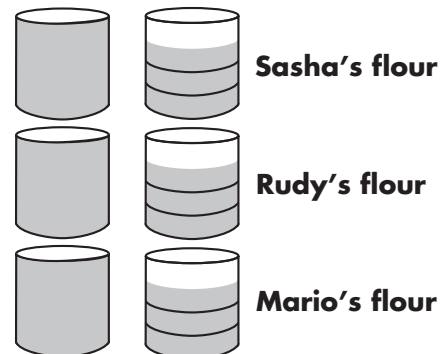
Travis's total stickers



groups of 3 stickers
Travis earned per song

Draw a picture, write an equation, and solve.

1. Sasha, Rudy, and Mario each have $1\frac{3}{4}$ cups of flour. Can they make a recipe for bread that needs 5 cups of flour?



Name _____

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Solve each problem. Draw a picture to show the main idea for each problem. Then write an equation and solve it. Write the answer in a complete sentence.

1. Bobby has 3 times as many model spaceships as his friend Sylvester does. Bobby has 21 spaceships. How many model spaceships does Sylvester have?

2. Dan saved \$463 over the 12 weeks of summer break. He saved \$297 of it during the last 4 weeks. How much did he save during the first 8 weeks?

3. Use a separate sheet of paper to show the main idea for the following problem. Choose the answer that solves the problem correctly.

A box of peanut-butter crackers was divided evenly among 6 children. Each child got 9 crackers. How many crackers were in the box?

- A** 54 **B** 48 **C** 39 **D** 36

4. Why is it helpful to draw a picture when attempting to solve an equation?
