

## Homework & Practice 9-11

### Model with Math

#### Another Look!

Tina built  $\frac{1}{8}$  of a model airplane on Saturday and  $\frac{4}{8}$  on Sunday. She built  $\frac{3}{8}$  more on Monday. How much more of the model airplane did she build on the weekend than on the weekday?

**Tell how you can use math to model the problem.**

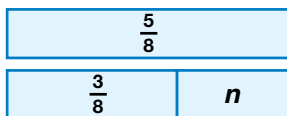
- I can use previously learned concepts and skills.
- I can use bar diagrams and equations to represent and solve this problem.
- I can decide if my results make sense.

**Draw a bar diagram and write and solve equations.**

$$\frac{1}{8} + \frac{4}{8} = \frac{5}{8} \text{ on the weekend}$$

$$\frac{5}{8} - \frac{3}{8} = n$$

$$n = \frac{2}{8}$$



Tina built  $\frac{2}{8}$  more of the model airplane on the weekend than on the weekday.

When you **model with math**, you use previously learned math to solve a problem.



#### © MP.4 Model with Math

On Nick's playlist,  $\frac{5}{12}$  of the songs are pop. What fraction of the songs are **NOT** pop? Use Exercises 1–3 to answer the question.

1. How can you draw a picture and write an equation to represent the problem?
2. What previously learned math can you use to solve the problem?
3. What fraction of the songs on Nick's playlist are **NOT** pop?

Ian and Rachel each made a trail mix. The amounts of ingredients they have are shown. Ian used all of the coconut, dried cranberries, and dried bananas to make his trail mix. Rachel made 2 cups of trail mix containing all of the almonds, pumpkin seeds, and granola. How much trail mix did Ian make? How much more trail mix did Rachel make than Ian?

**Trail Mix Ingredients**

- $\frac{3}{4}$  cup almonds
- $\frac{1}{4}$  cup pumpkin seeds
- $\frac{2}{4}$  cup coconut
- $\frac{3}{4}$  cup dried cranberries
- $1\frac{2}{4}$  cup walnuts
- 1 cup granola
- $\frac{2}{4}$  cup dried bananas

4. **MP.1 Make Sense and Persevere** What do you know, and what do you need to find?

5. **MP.5 Use Appropriate Tools** What tools could you use to help solve this problem?

6. **MP.2 Reasoning** How can you use a bar diagram to show how the quantities are related?

When you **model with math**, you represent the relationships in the problem.



7. **MP.1 Make Sense and Persevere** Write and solve an equation to find how much trail mix Ian made.

8. **MP.2 Reasoning** Explain how you were able to calculate how much more trail mix Rachel made than Ian.