

Lesson 3 Multi-Step Problem Solving

Multi-Step Example

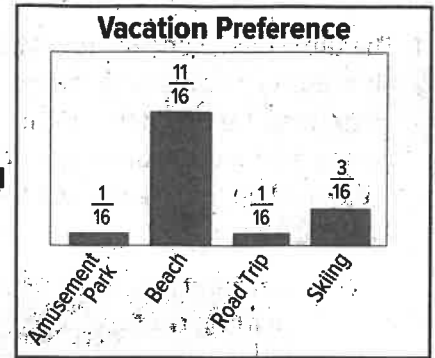
Rosa asked her classmates where they would like to take a vacation. The bar graph shows the fraction of the class that chose each option. What fraction more of the class prefer the beach than the other three vacations combined? **7.NS.3, MP 1**

(A) $\frac{3}{8}$

(C) $\frac{5}{8}$

(B) $\frac{9}{16}$

(D) $\frac{5}{16}$



Use a problem-solving model to solve this problem.

1 Understand

Read the problem. Circle the information you know.
Underline what the problem is asking you to find.

2 Plan

What will you need to do to solve the problem? Write your plan in steps.

Step 1

_____ the fractions for amusement park, road trip, and skiing.

Step 2

_____ the sum from the classmates that prefer the beach.

3 Solve

Use your plan to solve the problem. Show your steps.

$$\frac{1}{16} + \frac{1}{16} + \frac{3}{16} = \underline{\quad}$$

Determine the sum:

$$\underline{\quad} - \underline{\quad} = \underline{\quad} \text{ or } \underline{\quad}$$

Subtract to determine the difference:

There are _____ more of the class that prefer a beach vacation.

The correct answer is _____. Fill in that answer choice.

4 Check

How do you know your solution is accurate?

Read to Succeed!



Is your answer simplified?
Check to see if the fraction is in simplest form.
If not, be sure to write it in simplest form.

Lesson 3 *(continued)*

Use a problem-solving model to solve each problem.

- 1 The table below shows how Mason spends his monthly income. If he starts saving the money that he originally spent on video games and dining out, how much greater is the fraction that he spends than saves?

7.NS.3, MP 1

Category	Fraction of Income
Clothing	$\frac{7}{15}$
Music	$\frac{2}{15}$
Video Games	$\frac{4}{15}$
Dining Out	$\frac{2}{15}$



- (A) $\frac{1}{5}$ (B) $\frac{3}{2}$ (C) $\frac{3}{5}$ (D) $\frac{2}{5}$

- 3 The table shows the time Jira spends as she gets ready for school. The tasks are listed in order of when she completes them. How many minutes does she spend getting ready before she brushes her teeth? 7.EE.3, MP 1

Task	Time Spent (hours)
Shower	$\frac{2}{12}$
Get dressed	$\frac{1}{12}$
Eat breakfast	$\frac{3}{12}$
Brush teeth	$\frac{1}{12}$
Fix hair	$\frac{5}{12}$

- 2 The table shows two types of music notes and how many beats they represent. How many total beats are represented by an augmented eighth followed by two sixteenth notes and another augmented eighth note?

7.NS.3, MP 2

Note	Symbol	Beats
Sixteenth Note		$\frac{1}{4}$
Augmented Eighth Note		$\frac{3}{4}$

- 4 **H.O.T. Problem** The table shows two data sets. Which set has a greater average? By how much greater? 7.NS.3, MP 6

Data Set 1	$\frac{10}{11}$	$\frac{2}{11}$	$\frac{7}{11}$	$\frac{5}{11}$
Data Set 2	$\frac{9}{31}$	$\frac{1}{31}$	$\frac{3}{31}$	$\frac{1}{31}$