Name _____

Problem Solving • Find Equivalent Fractions

Essential Question How can you use the strategy *make a table* to solve problems using equivalent fractions?

Unlock the Problem (Real World)

Anaya is planting a flower garden. The garden will have no more than 12 equal sections. $\frac{3}{4}$ of the garden will have daisies. What other fractions could represent the part of the garden that will have daisies?

Read the Problem

What do I need to find?	**What information do I need to use?**	**How will I use the information?**
_____ that could represent the part of the garden that will have daisies	_____ of the garden will have daisies. The garden will not have more than _____ equal sections.	I can make a _____ to find _____ fractions to solve the problem.

Solve the Problem

I can make a table and draw models to find equivalent fractions.

| $\frac{3}{4}$ | ____ | ____ |

1. What other fractions could represent the part of the garden that will have daisies? Explain. _____

_____

_____

Math Talk
MATHEMATICAL PRACTICES ④
Interpret a Result Compare the models of the equivalent fractions. How does the number of parts relate to the size of the parts?

🔑 Try Another Problem

Two friends are knitting scarves. Each scarf has 3 rectangles, and $\frac{2}{3}$ of the rectangles have stripes. If the friends are making 10 scarves, how many rectangles do they need? How many rectangles will have stripes?

Read the Problem

What do I need to find?	What information do I need to use?	How will I use the information?

Solve the Problem

2. Does your answer make sense? Explain how you know.

_____

_____

_____

Math Talk

MATHEMATICAL PRACTICES ①

Analyze What other strategy could you have used and why?

Name _____

Unlock the Problem

✓ Use the Problem Solving Mathboard.
✓ Underline important facts.
✓ Choose a strategy you know.

1. Keisha is helping plan a race route for a 10-kilometer charity run. The committee wants to set up the following things along the course.

> **Viewing areas:** At the end of each half of the course
>
> **Water stations:** At the end of each fifth of the course
>
> **Distance markers:** At the end of each tenth of the course

Which locations have more than one thing located there?

First, make a table to organize the information.

	Number of Locations	First Location	All the Locations
Viewing Areas	2	$\frac{1}{2}$	$\frac{1}{2}$
Water Stations	5	$\frac{1}{5}$	$\frac{1}{5}$
Distance Markers	10	$\frac{1}{10}$	$\frac{1}{10}$

Next, identify a relationship. Use a common denominator, and find equivalent fractions.

Finally, identify the locations at which more than one thing will be set up. Circle the locations.

_____

_____

2. **THINK SMARTER** What if distance markers will also be placed at the end of every fourth of the course? Will any of those markers be set up at the same location as another distance marker, a water station,

or a viewing area? Explain. _____

_____

_____

3. Fifty-six students signed up to volunteer for the race. There were 4 equal groups of students, and each group had a different task.

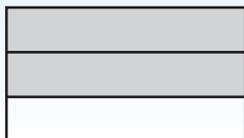How many students were in each group? _____

On Your Own

4. **THINK SMARTER** A baker cut a pie in half. He cut each half into 3 equal pieces and each piece into 2 equal slices. He sold 6 slices. What fraction of the pie did the baker sell?

_____

5. **GO DEEPER** Andy cut a tuna sandwich and a chicken sandwich into a total of 15 same-size pieces. He cut the tuna sandwich into 9 more pieces than the chicken sandwich. Andy ate 8 pieces of the tuna sandwich. What fraction of the tuna sandwich did he eat?

_____

6. **MATHEMATICAL PRACTICE ⑥** Luke threw balls into these buckets at a carnival. The number on the bucket gives the number of points for each throw. What is the least number of throws needed to score exactly 100 points? **Explain**.

_____

_____

_____

WRITE ▸ *Math* · · · · · · · · · · · ·
Show Your Work

7. **THINK SMARTER** Victoria arranges flowers in vases at her restaurant. In each arrangement, $\frac{2}{3}$ of the flowers are yellow. What other fractions can represent the part of the flowers that are yellow? Shade the models to show your work.

$\frac{2}{3}$ $\frac{}{12}$ $\frac{}{}$

Problem Solving • Find Equivalent Fractions

Solve each problem.

1. Miranda is braiding her hair. Then she will attach beads to the braid. She wants $\frac{1}{3}$ of the beads to be red. If the greatest number of beads that will fit on the braid is 12, what other fractions could represent the part of the beads that are red?

$\frac{2}{6}, \frac{3}{9}, \frac{4}{12}$

2. Ms. Groves has trays of paints for students in her art class. Each tray has 5 colors. One of the colors is purple. What fraction of the colors in 20 trays is purple?

_____

3. Miguel is making an obstacle course for field day. At the end of every sixth of the course, there is a tire. At the end of every third of the course, there is a cone. At the end of every half of the course, there is a hurdle. At which locations of the course will people need to go through more than one obstacle?

_____

4. **WRITE** ▶*Math* Draw and compare models of $\frac{3}{4}$ of a pizza pie and $\frac{6}{8}$ of a same-size pie.

_____

_____

_____

Lesson Check (4.NF.A.1)

1. A used bookstore will trade 2 of its books for 3 of yours. If Val brings in 18 books to trade, how many books can she get from the store?

_____

2. Every $\frac{1}{2}$ hour Naomi stretches her neck; every $\frac{1}{3}$ hour she stretches her legs; and every $\frac{1}{6}$ hour she stretches her arms. Which parts of her body will Naomi stretch when $\frac{2}{3}$ of an hour has passed?

_____

Spiral Review (4.OA.B.4, 4.NBT.B.4, 4.NBT.B.6, 4.NF.A.1)

3. At the beginning of the year, the Wong family car had been driven 14,539 miles. At the end of the year, their car had been driven 21,844 miles. How many miles did the Wong family drive their car during that year?

_____

4. Widget Company made 3,600 widgets in 4 hours. They made the same number of widgets each hour. How many widgets did the company make in one hour?

_____

5. Tyler is thinking of a number that is divisible by 2 and by 3. Write another number by which Tyler's number must also be divisible.

_____

6. Jessica drew a circle divided into 8 equal parts. She shaded 6 of the parts. What fraction is equivalent to the part of the circle that is shaded?

_____

FOR MORE PRACTICE GO TO THE
Personal Math Trainer