LESSON MAKER PRO

Share the Shade

Use fraction bars to tell and solve sharing stories.

GRADE 5 · 5.NF.B.15.b

5.NF.B.15.b "Create a story context for a unit fraction divided by a whole number, and use a visual fraction model to show the quotient."

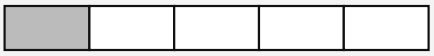
NAME _____ DATE _____

THE BIG IDEA

A unit fraction is one equal part of a whole. To share it equally, split the shaded part into equal pieces. Split every other part of the bar the same way so you can name one share as a fraction of the whole.

WORKED EXAMPLE

A club has 1/5 of a ribbon roll left. Two kids share it equally. The bar shows the ribbon left. What fraction of the whole roll does each kid get?

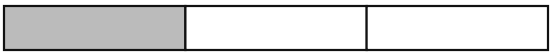
Whole roll 

1. The shaded part is 1/5 of the whole roll.
2. Split each fifth into 2 equal pieces. The whole bar now has 10 equal pieces.
3. Each kid gets 1 of those 10 pieces.

Answer: 1/5 ÷ 2 = 1/10 of the whole roll

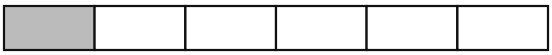
PRACTICE 6 problems

1 The shaded part is shared equally by 4 friends. Use the bar to write a division equation and find one friend's share of the whole.



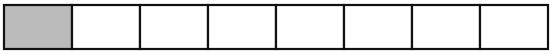
ANSWER _____

2 The shaded part is shared equally by 3 friends. Use the bar to write a division equation and find one friend's share of the whole.



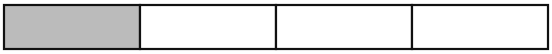
ANSWER _____

3 The shaded part is shared equally by 4 friends. Use the bar to write a division equation and find one friend's share of the whole.



ANSWER _____

4 Write a one-sentence sharing story for 1/4 ÷ 6. Use the bar to show one share, then find its fraction of the whole.



ANSWER _____

5 Write a one-sentence sharing story for 1/7 ÷ 3. Draw a fraction bar to show one share, then find its fraction of the whole.

ANSWER _____

6 Write a one-sentence sharing story for 1/9 ÷ 4. Draw a fraction bar to show one share, then find its fraction of the whole.

ANSWER _____

APPLY IT Show your work

1 At game night, 1/8 of a pizza is left. Three friends share it equally. Draw a fraction bar and find each friend's share of the whole pizza.

WORK SPACE

ANSWER _____

2 A club has 1/10 of a roll of sticker tape left. Four friends share it equally for their projects. Draw a fraction bar and find each friend's share of the whole roll.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Write a different one-sentence sharing story for each equation: 1/3 ÷ 6 and 1/6 ÷ 3. Draw a fraction bar for each story. Explain why one share is the same fraction of a whole in both stories.

WORK SPACE AND ANSWER

ANSWER KEY

Share the Shade

GRADE 5 · 5.NF.B.15.b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	The shaded part is shared equally by 4 friends. Use the bar to write a division equation and find one friend's share of the whole.	**1/3 ÷ 4 = 1/12**
2	The shaded part is shared equally by 3 friends. Use the bar to write a division equation and find one friend's share of the whole.	**1/6 ÷ 3 = 1/18**
3	The shaded part is shared equally by 4 friends. Use the bar to write a division equation and find one friend's share of the whole.	**1/8 ÷ 4 = 1/32**
4	Write a one-sentence sharing story for 1/4 ÷ 6. Use the bar to show one share, then find its fraction of the whole.	**Sample story: Six friends share 1/4 of a pan of brownies equally. Divide each fourth of the bar into 6 equal pieces and mark 1 piece as one share; 1/4 ÷ 6 = 1/24.**
5	Write a one-sentence sharing story for 1/7 ÷ 3. Draw a fraction bar to show one share, then find its fraction of the whole.	**Sample story: Three friends share 1/7 of a roll of tape equally. Divide each seventh of the bar into 3 equal pieces and mark 1 piece as one share; 1/7 ÷ 3 = 1/21.**
6	Write a one-sentence sharing story for 1/9 ÷ 4. Draw a fraction bar to show one share, then find its fraction of the whole.	**Sample story: Four friends share 1/9 of a bag of beads equally. Divide each ninth of the bar into 4 equal pieces and mark 1 piece as one share; 1/9 ÷ 4 = 1/36.**

PART 2 · APPLY IT

1. **1/24 of the whole pizza** Divide each eighth of the bar into 3 equal pieces and mark 1 piece for each friend. The whole pizza has 24 equal pieces, so 1/8 ÷ 3 = 1/24.
2. **1/40 of the whole roll** Divide each tenth of the bar into 4 equal pieces and mark 1 piece for each friend. The whole roll has 40 equal pieces, so 1/10 ÷ 4 = 1/40.

CHALLENGE

Six kids share 1/3 of a sheet of stickers equally. Three kids share 1/6 of a sheet of stickers equally. Each bar can be split into 18 equal pieces, and one kid gets 1 piece in either story, so both shares are 1/18.

Accept any sharing story that matches its equation and any correctly divided fraction bar. In the challenge, the stories must be different and both models must show one share as 1/18 of a whole.