

Luna's Space Adventure

Grade 5 • Fractions as division • 5.NF.B.3

Name _____

Date _____



Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

Division as a fraction $a \div b = a/b$.

$$8 \div 8 = \frac{\square}{\square}$$

$$9 \div 9 = \frac{\square}{\square}$$

$$8 \div 5 = \frac{\square}{\square}$$

$$5 \div 3 = \frac{\square}{\square}$$

$$1 \div 5 = \frac{\square}{\square}$$

$$2 \div 8 = \frac{\square}{\square}$$

Sharing stories Each share is a fraction.

Luna shares 7 pies equally among 6 friends. How much pie does each friend get? _____

Max shares 8 pies equally among 6 friends. How much pie does each friend get? _____

Nova shares 4 pies equally among 3 friends. How much pie does each friend get? _____

More than one whole Write the answer as a mixed number.

$$8 \div 6 = \square \frac{\square}{\square}$$

$$6 \div 4 = \square \frac{\square}{\square}$$

$$4 \div 3 = \square \frac{\square}{\square}$$

$$14 \div 5 = \square \frac{\square}{\square}$$

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ANSWER KEY



Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

Division as a fraction $a \div b = a/b$.

$$8 \div 8 = \frac{8}{8}$$

$$9 \div 9 = \frac{9}{9}$$

$$8 \div 5 = \frac{8}{5}$$

$$5 \div 3 = \frac{5}{3}$$

$$1 \div 5 = \frac{1}{5}$$

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

Sharing stories Each share is a fraction.

Luna shares 7 pies equally among 6 friends. How much pie does each friend get?

$7/6$ pie

Max shares 8 pies equally among 6 friends. How much pie does each friend get?

$4/3$ pie

Nova shares 4 pies equally among 3 friends. How much pie does each friend get?

$4/3$ pie

More than one whole Write the answer as a mixed number.

$$8 \div 6 = 1 \frac{2}{6}$$

$$6 \div 4 = 1 \frac{2}{4}$$

$$4 \div 3 = 1 \frac{1}{3}$$

$$14 \div 5 = 2 \frac{4}{5}$$

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GUIDE

① What this sheet practises

Seeing a fraction as a division: $3 \div 4$ is $3/4$. Your child writes divisions as fractions and solves sharing stories where each share is a fraction.

② A problem from the sheet, worked out

Sharing stories Each share is a fraction.

Luna shares 7 pies equally among 6 friends. How much pie does each friend get?

$7/6$ pie

Max shares 8 pies equally among 6 friends. How much pie does each friend get?

$4/3$ pie

Nova shares 4 pies equally among 3 friends. How much pie does each friend get?

$4/3$ pie

How: What's being shared goes on top and the number of shares on the bottom: 11 pies shared by 7 friends is $11 \div 7 = 11/7$, or $1 \frac{4}{7}$, pies each.

③ Words to know

numerator the top number: what's being shared

denominator the bottom number: how many shares

mixed number a whole number and a fraction, like $1 \frac{1}{2}$

equally every share is the same size

④ Watch for

- Writing the fraction upside down: 11 pies for 7 friends is $11/7$, not $7/11$.
- Thinking no one can get more than a whole when there are more pies than friends.
- Dropping the remainder instead of making it a fraction: $3 \div 2$ is $1 \frac{1}{2}$, not 1.

⑤ Where it fits

BEFORE

4.NBT.B.6

Divide up to four-digit numbers by one-digit numbers, with remainders.

THIS SHEET

5.NF.B.3

Understand a fraction as a division: $3/4$ is $3 \div 4$.

NEXT

5.NF.B.4

Multiply a fraction or whole number by a fraction.

⑥ Helping at home

Share 3 slices of bread among 4 people by cutting each slice into fourths. Each person gets 3 fourths of a slice: $3 \div 4 = 3/4$.