

Luna's Space Adventure

Name _____

Grade 5 • Fraction story problems • 5.NF.A.2

Date _____



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

Story problems Solve, then check: is the answer more or less than $\frac{1}{2}$? than 1?

Luna walked $\frac{1}{8}$ mile and Nova walked $\frac{1}{3}$ mile. How far did they walk altogether?

Nova walked $\frac{1}{2}$ mile and Orion walked $\frac{2}{3}$ mile. How far did they walk altogether?

Max walked $\frac{1}{4}$ mile and Luna walked $\frac{1}{5}$ mile. How far did they walk altogether? _____

Luna had $\frac{2}{3}$ of a pizza and ate $\frac{3}{5}$ of a pizza. How much pizza is left?

Nova walked $\frac{3}{4}$ mile and Max walked $\frac{1}{3}$ mile. How far did they walk altogether?

Max walked $\frac{1}{4}$ mile and Zed walked $\frac{2}{3}$ mile. How far did they walk altogether?

Does it make sense? Use $\frac{1}{2}$ and 1 to decide, without working it out.

$\frac{2}{5} + \frac{1}{2}$ is... less than 1 more than 1

$\frac{3}{4} + \frac{4}{5}$ is... **less than 1** **more than 1**

Sam says $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$. Is that reasonable? yes no

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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!

Story problems Solve, then check: is the answer more or less than $\frac{1}{2}$? than 1?

Luna walked $\frac{1}{8}$ mile and Nova walked $\frac{1}{3}$ mile. How far did they walk altogether?

$\frac{11}{24}$

Nova walked $\frac{1}{2}$ mile and Orion walked $\frac{2}{3}$ mile. How far did they walk altogether?

$\frac{7}{6}$

Max walked $\frac{1}{4}$ mile and Luna walked $\frac{1}{5}$ mile. How far did they walk altogether?

$\frac{9}{20}$

Luna had $\frac{2}{3}$ of a pizza and ate $\frac{3}{5}$ of a pizza. How much pizza is left?

$\frac{1}{15}$

Nova walked $\frac{3}{4}$ mile and Max walked $\frac{1}{3}$ mile. How far did they walk altogether?

$\frac{13}{12}$

Max walked $\frac{1}{4}$ mile and Zed walked $\frac{2}{3}$ mile. How far did they walk altogether?

$\frac{11}{12}$

Does it make sense? Use $\frac{1}{2}$ and 1 to decide, without working it out.

$\frac{2}{5} + \frac{1}{2}$ is...

less than 1

more than 1

$\frac{3}{4} + \frac{4}{5}$ is...

less than 1

more than 1

Sam says $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$. Is that reasonable?

yes

no

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GUIDE

① What this sheet practises

Story problems that add or subtract fractions with different denominators, then a check: does the answer make sense next to $\frac{1}{2}$ and 1?

② A problem from the sheet, worked out

Story problems Solve, then check: is the answer more or less than $\frac{1}{2}$? than 1?

Luna walked $\frac{1}{8}$ mile and Nova walked $\frac{1}{3}$ mile. How far did they walk altogether? $\frac{11}{24}$

Nova walked $\frac{1}{2}$ mile and Orion walked $\frac{2}{3}$ mile. How far did they walk altogether? $\frac{7}{6}$

Max walked $\frac{1}{4}$ mile and Luna walked $\frac{1}{5}$ mile. How far did they walk altogether? $\frac{9}{20}$

Luna had $\frac{2}{3}$ of a pizza and ate $\frac{3}{5}$ of a pizza. How much pizza is left? $\frac{1}{15}$

How: Write the addition or subtraction the story needs and solve it with a common denominator. Then estimate: $\frac{1}{2} + \frac{3}{5}$ is a bit more than 1, so $\frac{11}{10}$ makes sense.

③ Words to know

benchmark an easy number to compare with, like $\frac{1}{2}$ or 1

estimate a close guess

reasonable makes sense for the story

common denominator a bottom number both fractions share

④ Watch for

- Adding the tops and the bottoms, as in $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$.
- Skipping the check: a sum can't be smaller than one of the fractions added.
- Adding when the story asks how much is left.

⑤ Where it fits

BEFORE

5.NF.A.1

Add and subtract fractions with unlike denominators.

THIS SHEET

5.NF.A.2

Solve fraction story problems and check answers with benchmark fractions.

⑥ Helping at home

Ask for a guess before working it out: is $\frac{3}{4} + \frac{1}{2}$ more or less than 1? Then solve it together and see if the guess held.