

Luna's Space Adventure

Name _____

Grade 5 · Unlike denominators · 5.NF.A.1

Date _____



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

Find a common denominator Rename both fractions, then add or subtract. Simplify.

$$\frac{1}{2} + \frac{1}{5} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{3}{4} - \frac{7}{12} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{1}{2} + \frac{4}{5} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{1}{3} + \frac{7}{10} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{1}{3} + \frac{1}{6} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{1}{3} + \frac{5}{6} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{1}{12} + \frac{7}{10} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{1}{4} + \frac{3}{5} = \frac{\boxed{}}{\boxed{}}$$

$$\frac{1}{2} + \frac{5}{12} = \frac{\boxed{}}{\boxed{}}$$

Mixed numbers Write the answer as a fraction in simplest form.

$$3 \frac{1}{4} + 1 \frac{5}{8} = \frac{\boxed{}}{\boxed{}}$$

$$1 \frac{1}{2} + 1 \frac{7}{8} = \frac{\boxed{}}{\boxed{}}$$

$$2 \frac{2}{3} + 1 \frac{4}{5} = \frac{\boxed{}}{\boxed{}}$$

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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!

Find a common denominator Rename both fractions, then add or subtract. Simplify.

$$\frac{1}{2} + \frac{1}{5} = \frac{\boxed{7}}{\boxed{10}}$$

$$\frac{3}{4} - \frac{7}{12} = \frac{\boxed{1}}{\boxed{6}}$$

$$\frac{1}{2} + \frac{4}{5} = \frac{\boxed{13}}{\boxed{10}}$$

$$\frac{1}{3} + \frac{7}{10} = \frac{\boxed{31}}{\boxed{30}}$$

$$\frac{1}{3} + \frac{1}{6} = \frac{\boxed{1}}{\boxed{2}}$$

$$\frac{1}{3} + \frac{5}{6} = \frac{\boxed{7}}{\boxed{6}}$$

$$\frac{1}{12} + \frac{7}{10} = \frac{\boxed{47}}{\boxed{60}}$$

$$\frac{1}{4} + \frac{3}{5} = \frac{\boxed{17}}{\boxed{20}}$$

$$\frac{1}{2} + \frac{5}{12} = \frac{\boxed{11}}{\boxed{12}}$$

Mixed numbers Write the answer as a fraction in simplest form.

$$3\frac{1}{4} + 1\frac{5}{8} = \frac{\boxed{39}}{\boxed{8}}$$

$$1\frac{1}{2} + 1\frac{7}{8} = \frac{\boxed{27}}{\boxed{8}}$$

$$2\frac{2}{3} + 1\frac{4}{5} = \frac{\boxed{67}}{\boxed{15}}$$

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GUIDE

① What this sheet practises

Adding and subtracting fractions with different denominators, including mixed numbers, by first renaming them with a common denominator.

② A problem from the sheet, worked out

Find a common denominator Rename both fractions, then add or subtract. Simplify.

$$\frac{1}{2} + \frac{1}{5} = \frac{\boxed{7}}{\boxed{10}}$$

$$\frac{3}{4} - \frac{7}{12} = \frac{\boxed{1}}{\boxed{6}}$$

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How: Find a number both denominators divide into, like 30 for 5 and 6. Rename each fraction with that denominator, add or subtract the tops, then simplify.

③ Words to know

denominator the bottom number: the size of the parts

common denominator a bottom number both fractions share

equivalent worth the same, like $\frac{1}{2}$ and $\frac{3}{6}$

simplest form top and bottom share no factor but 1

④ Watch for

- Adding the tops and the bottoms: $\frac{1}{5} + \frac{5}{6}$ is not $\frac{6}{11}$.
- Changing the bottom number without changing the top to match.
- Leaving an answer that can be simplified, like $\frac{6}{8}$ instead of $\frac{3}{4}$.

⑤ Where it fits

BEFORE

4.NF.B.3

Add and subtract fractions and mixed numbers with like denominators.

THIS SHEET

5.NF.A.1

Add and subtract fractions with unlike denominators.

NEXT

5.NF.A.2

Solve fraction story problems and check answers with benchmark fractions.

⑥ Helping at home

Pour $\frac{1}{2}$ cup and then $\frac{1}{4}$ cup of water into a measuring cup. Where does it reach? Talk about why $\frac{1}{2}$ is the same as $\frac{2}{4}$.