Luna's Space Adventure

Name _____

Grade 3 · Equivalent and comparing fractions · 3.NF.A.3

Date _____

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

Same amount

Write the equal fraction.

$\frac{2}{4} = \frac{\square}{\square}$ $\frac{1}{3} = \frac{\square}{\square}$ $\frac{2}{3} = \frac{\square}{\square}$ $\frac{2}{3} = \frac{\square}{\square}$

Whole numbers as fractions

How many parts make it?

$3 = \frac{\square}{\square}$ $2 = \frac{\square}{\square}$ $3 = \frac{\square}{\square}$ $1 = \frac{\square}{\square}$

Compare

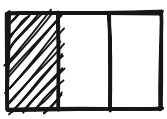
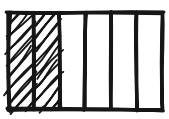
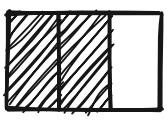
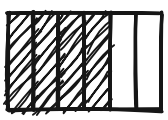
Same bottom: compare tops. Same top: the bigger bottom means smaller pieces.

$\frac{1}{3} \bigcirc \frac{1}{4}$ $\frac{3}{4} \bigcirc \frac{1}{4}$ $\frac{2}{6} \bigcirc \frac{2}{4}$ $\frac{3}{6} \bigcirc \frac{5}{6}$

$\frac{2}{6} \bigcirc \frac{2}{8}$ $\frac{1}{3} \bigcirc \frac{2}{3}$ $\frac{3}{6} \bigcirc \frac{3}{4}$ $\frac{1}{4} \bigcirc \frac{3}{4}$

Same size, different pieces

Both show the same amount. Write the second fraction.

$\frac{\square}{\square}$ $\frac{\square}{\square}$ $\frac{\square}{\square}$ $\frac{\square}{\square}$

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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!

Same amount

Write the equal fraction.

$\frac{2}{4} = \frac{6}{12}$ $\quad \frac{1}{3} = \frac{3}{9}$ $\quad \frac{2}{3} = \frac{4}{6}$ $\quad \frac{2}{3} = \frac{6}{9}$

Whole numbers as fractions

How many parts make it?

$3 = \frac{9}{3}$ $\quad 2 = \frac{4}{2}$ $\quad 3 = \frac{6}{2}$ $\quad 1 = \frac{2}{2}$

Compare

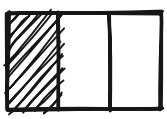
Same bottom: compare tops. Same top: the bigger bottom means smaller pieces.

$\frac{1}{3} > \frac{1}{4}$ $\quad \frac{3}{4} > \frac{1}{4}$ $\quad \frac{2}{6} < \frac{2}{4}$ $\quad \frac{3}{6} < \frac{5}{6}$

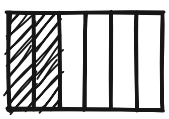
$\frac{2}{6} > \frac{2}{8}$ $\quad \frac{1}{3} < \frac{2}{3}$ $\quad \frac{3}{6} < \frac{3}{4}$ $\quad \frac{1}{4} < \frac{3}{4}$

Same size, different pieces

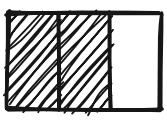
Both show the same amount. Write the second fraction.



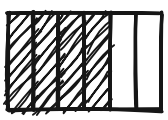
$\frac{1}{3}$



$\frac{2}{6}$



$\frac{2}{3}$



$\frac{4}{6}$

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GUIDE

1 What this sheet practises

Fractions that are equal, whole numbers written as fractions, and comparing fractions with the same top or bottom number.

2 A problem from the sheet, worked out

Compare Same bottom: compare tops. Same top: the bigger bottom means smaller pieces.

$\frac{1}{3} > \frac{1}{4}$ $\quad \frac{3}{4} > \frac{1}{4}$ $\quad \frac{2}{6} < \frac{2}{4}$ $\quad \frac{3}{6} < \frac{5}{6}$

$\frac{2}{6} > \frac{2}{8}$ $\quad \frac{1}{3} < \frac{2}{3}$ $\quad \frac{3}{6} < \frac{3}{4}$ $\quad \frac{1}{4} < \frac{3}{4}$

How: Same bottom number: the bigger top is more. Same top number: a bigger bottom means smaller pieces, so less. Equal fractions cover the same amount of the same whole.

3 Words to know

equivalent worth the same amount

compare decide which is more

whole the full shape, or 1

> < = greater than, less than, equal to

4 Watch for

- Thinking 1/8 is more than 1/4 because 8 is more than 4.
- Comparing fractions of wholes that aren't the same size.
- Thinking 6/6 is more than 1.

5 Where it fits

BEFORE
2.G.A.3
Split circles and rectangles into two, three or four equal shares.

THIS SHEET
3.NF.A.3
Find equivalent fractions and compare fractions by thinking about their size.

NEXT
4.NF.A.1
Explain why two fractions are equal, using pictures and models.

6 Helping at home

Fold two same-sized paper strips, one into halves and one into fourths, and hold them together: 1/2 and 2/4 line up.