

# Luna's Space Adventure

Name \_\_\_\_\_

Grade 4 · Fraction times a whole number · 4.NF.B.4

Date \_\_\_\_\_



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

**Groups of a unit fraction**  $5 \times \frac{1}{4}$  is five fourths.

$$3 \times \frac{1}{8} = \frac{\square}{\square}$$

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

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

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

**Multiply** Multiply the whole number by the numerator.

$$4 \times \frac{6}{10} = \frac{\square}{\square}$$

$$6 \times \frac{2}{5} = \frac{\square}{\square}$$

$$6 \times \frac{4}{5} = \frac{\square}{\square}$$

$$5 \times \frac{2}{3} = \frac{\square}{\square}$$

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

$$4 \times \frac{4}{8} = \frac{\square}{\square}$$

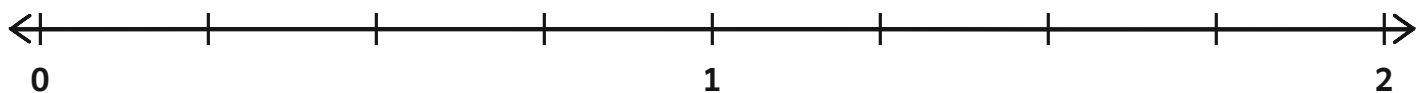
## Story time

Zed walks  $\frac{2}{4}$  of a mile each day. How far does Zed walk in 6 days? \_\_\_\_\_

Luna walks  $\frac{3}{4}$  of a mile each day. How far does Luna walk in 4 days? \_\_\_\_\_

**Jumps of a fraction** Make 5 jumps of  $\frac{1}{4}$  from 0. Where do you land?

$$5 \times \frac{1}{4} = \frac{\square}{\square}$$



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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!

**Groups of a unit fraction**  $5 \times \frac{1}{4}$  is five fourths.

$$3 \times \frac{1}{8} = \frac{3}{8}$$

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

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

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

**Multiply** Multiply the whole number by the numerator.

$$4 \times \frac{6}{10} = \frac{24}{10}$$

$$6 \times \frac{2}{5} = \frac{12}{5}$$

$$6 \times \frac{4}{5} = \frac{24}{5}$$

$$5 \times \frac{2}{3} = \frac{10}{3}$$

$$4 \times \frac{2}{3} = \frac{8}{3}$$

$$4 \times \frac{4}{8} = \frac{16}{8}$$

## Story time

Zed walks  $\frac{2}{4}$  of a mile each day. How far does Zed walk in 6 days?

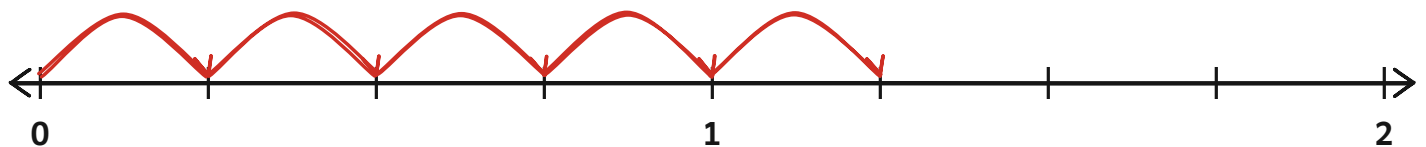
3 mi

Luna walks  $\frac{3}{4}$  of a mile each day. How far does Luna walk in 4 days?

3 mi

**Jumps of a fraction** Make 5 jumps of  $\frac{1}{4}$  from 0. Where do you land?

$$5 \times \frac{1}{4} = \frac{5}{4}$$



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GUIDE

## ① What this sheet practises

Multiplying a fraction by a whole number:  $6 \times \frac{3}{4}$  is six groups of  $\frac{3}{4}$ . Your child writes the product and solves stories with it.

## ② A problem from the sheet, worked out

**Multiply** Multiply the whole number by the numerator.

$$4 \times \frac{6}{10} = \frac{24}{10}$$

$$6 \times \frac{2}{5} = \frac{12}{5}$$

$$6 \times \frac{4}{5} = \frac{24}{5}$$

$$5 \times \frac{2}{3} = \frac{10}{3}$$

$$4 \times \frac{2}{3} = \frac{8}{3}$$

$$4 \times \frac{4}{8} = \frac{16}{8}$$

**How:** Multiply the whole number by the top and keep the bottom:  $6 \times \frac{3}{6} = \frac{18}{6}$ . It's the same as adding  $\frac{3}{6}$  six times. Turn it into a whole or mixed number if asked.

## ③ Words to know

**unit fraction** one equal part, like  $\frac{1}{4}$

**numerator** the top number: how many parts

**improper fraction** top bigger than bottom, like  $\frac{7}{4}$

**mixed number** a whole number and a fraction:  $1\frac{3}{4}$

## ④ Watch for

- Multiplying the bottom too:  $6 \times \frac{3}{6}$  is not  $\frac{18}{36}$ .
- Adding the whole number to the top instead of multiplying.
- Leaving the unit off a story answer, like miles.

## ⑤ Where it fits

BEFORE

**3.NF.A.1**

Understand a unit fraction as one of the equal parts of a whole.

THIS SHEET

**4.NF.B.4**

Multiply a fraction by a whole number.

NEXT

**5.NF.B.4**

Multiply a fraction or whole number by a fraction.

## ⑥ Helping at home

Scoop with a  $\frac{1}{4}$  cup: 6 scoops is  $6 \times \frac{1}{4} = \frac{6}{4}$ , or  $1\frac{1}{2}$  cups. Pour them into a bigger measuring cup to check.