

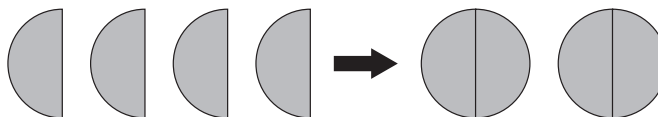


Multiplying a Fraction and a Whole Number

We can multiply a fraction and a whole number. If we get an answer that is an improper fraction, we must express the improper fraction as a whole number or a mixed number in the simplest form.

1. Multiply $\frac{1}{2}$ by 4.

$$\begin{aligned}\frac{1}{2} \times 4 &= \frac{4}{2} \\ &= 2\end{aligned}$$



$$\frac{1}{2} \times 4 = \frac{1 \times 4}{2}$$

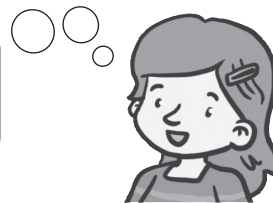


2. Multiply 3 by $\frac{1}{2}$.

$$\begin{aligned}3 \times \frac{1}{2} &= \frac{3}{2} \\ &= 1\frac{1}{2}\end{aligned}$$

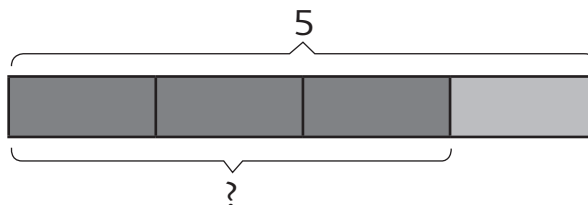


$$3 \times \frac{1}{2} = \frac{1}{2} \times 3$$



3. Multiply 5 by $\frac{3}{4}$.

$$\begin{aligned}5 \times \frac{3}{4} &= \frac{15}{4} \\ &= 3\frac{3}{4}\end{aligned}$$



$$5 \times \frac{3}{4} = \frac{5 \times 3}{4}$$



Fraction of a Set

- This is a set of fruits.
What fraction of the set of fruits are mangoes?



There are 16 fruits in the set. 4 of the fruits are mangoes.

$$\frac{4}{16} = \frac{1}{4}$$

$\frac{1}{4}$ of the fruits are mangoes.

Write $\frac{4}{16}$ in its simplest form.



- | | | | | | |
|---------------|-----------------|--|--|--|--|
| $\frac{1}{5}$ | } 5 equal parts | | | | |
| $\frac{1}{5}$ | | | | | |
| $\frac{1}{5}$ | | | | | |
| $\frac{1}{5}$ | | | | | |
| $\frac{1}{5}$ | | | | | |

- How many apples does each child get?
There are 20 apples. There are 5 children.
Each child gets the same number of apples.

$$\frac{1}{5} \text{ of } 20 = \frac{1}{5} \times 20 = \frac{20}{5} = 4$$

What is $\frac{1}{5}$ of 20?

Each child gets 4 apples.



- What is $\frac{2}{5}$ of 20?
 $\frac{2}{5} \text{ of } 20 = \frac{2}{5} \times 20 = \frac{40}{5} = 8$

Two children get 8 apples altogether.