

Guided Notes

4.6 Divide Whole Numbers by Fractions (6.NS.1)

Vocabulary

Any two numbers with a product of 1 are called reciprocals.

Complete the table below by finding the reciprocal of $\frac{2}{3}$. Use the guess, check, and revise strategy. The first one is done for you.

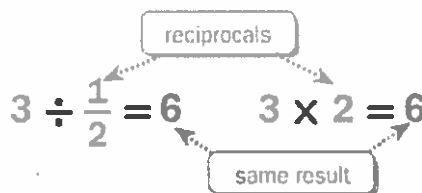
Number	Product	Reciprocal
$\frac{1}{2}$	$\frac{1}{2} \times 2 = 1$	2
$\frac{2}{3}$	$\frac{2}{3} \times \frac{3}{2} = 1$	$\frac{3}{2}$

Describe the relationship between the numerator and the denominator of a number and its reciprocal. they

switch places

Find Reciprocals

Dividing 3 by $\frac{1}{2}$ gives the same result as multiplying 3 by 2, which is the reciprocal of $\frac{1}{2}$. Any two numbers with a product of 1 are called reciprocals.



Divide by a Fraction

Words - To divide a whole number by a fraction, multiply by its reciprocal.
Then, simplify if needed.

Numbers - $5 \div \frac{2}{3} = \frac{5}{1} \times \frac{3}{2}$

The division $5 \div \frac{2}{3}$ is read as 5 divided by two-thirds. You will need to know how many "two thirds" are in 5.

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Guided Practice:

Find the reciprocal of each number.

1.) $\frac{2}{3}$ $\frac{3}{2}$

2.) $\frac{1}{7}$ $\frac{7}{1}$

3.) 4 $\frac{1}{4}$

Divide. Write in Simplest form.

4.) $2 + \frac{1}{3}$

5.) $2 + \frac{4}{5}$

6.) $5 + \frac{2}{7}$

$$\frac{2}{1} \times \frac{3}{1} = \frac{6}{1}$$

$$\frac{2}{1} \times \frac{5}{4_2} = \frac{5}{2}$$

$$\frac{5}{1} \times \frac{7}{2} = \frac{35}{2}$$

6

$2\frac{1}{2}$

$17\frac{1}{2}$

7.) A neighborhood development that is 4 acres to be divided into $\frac{2}{3}$ acre lots. How many lots can be created?

$4 \div \frac{2}{3}$

$$\frac{4}{1} \times \frac{3}{2} = \frac{6}{1}$$

6 lots can be created.

Building on the Essential Question - Why does a whole number divided by a fraction less than one have a quotient greater than the whole number dividend?

you are dividing the whole number into smaller parts — so there will be more parts.

Rate Yourself - Circle the one that applies



Clear



Somewhat Clear



Not So Clear