MATH

Dividing fractions

Name _____ Date _____

I can divide with fractions.

1 How it works

Dividing asks how many fit. 2 ÷ 1/4 asks how many fourths are in 2. There are 8. The shortcut: keep the first number, change ÷ to ×, and flip the second fraction. So 2 ÷ 1/4 = 2 × 4 = 8. A flipped fraction is called a reciprocal.

How many fourths are in 2?



$$2 \div \frac{1}{4} = 2 \times 4 = 8$$

2 Divide a whole number by a unit fraction

How many parts fit?

1. $2 \div \frac{1}{5} = \square$
2. $5 \div \frac{1}{8} = \square$
3. $5 \div \frac{1}{4} = \square$
4. $7 \div \frac{1}{5} = \square$
5. $8 \div \frac{1}{2} = \square$
6. $4 \div \frac{1}{3} = \square$
7. $7 \div \frac{1}{4} = \square$
8. $6 \div \frac{1}{8} = \square$
9. $4 \div \frac{1}{6} = \square$

How did I do? ☆ ☆ ☆

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Keep, change, flip

Name _____ Date _____

I can divide fractions by multiplying by the reciprocal.

1 Divide a unit fraction by a whole number

The pieces get smaller.

1. $\frac{1}{3} \div 4 = \frac{\square}{\square}$
2. $\frac{1}{5} \div 2 = \frac{\square}{\square}$
3. $\frac{1}{6} \div 6 = \frac{\square}{\square}$
4. $\frac{1}{2} \div 3 = \frac{\square}{\square}$
5. $\frac{1}{3} \div 5 = \frac{\square}{\square}$
6. $\frac{1}{3} \div 6 = \frac{\square}{\square}$

2 Write the reciprocal

Flip it. The reciprocal of 5 is 1/5.

1. 6 flips to $\frac{\square}{\square}$
2. $\frac{4}{5}$ flips to $\frac{\square}{\square}$
3. $\frac{5}{2}$ flips to $\frac{\square}{\square}$
4. $\frac{5}{6}$ flips to $\frac{\square}{\square}$
5. $\frac{7}{8}$ flips to $\frac{\square}{\square}$
6. $\frac{1}{3}$ flips to $\frac{\square}{\square}$

3 Keep the first, change the sign, flip the second

1. $\frac{1}{5} \div \frac{5}{6} = \frac{1}{5} \times \frac{\square}{\square} = \frac{\square}{\square}$
2. $\frac{4}{5} \div \frac{2}{3} = \frac{4}{5} \times \frac{\square}{\square} = \frac{\square}{\square}$
3. $\frac{1}{8} \div \frac{3}{8} = \frac{1}{8} \times \frac{\square}{\square} = \frac{\square}{\square}$
4. $\frac{3}{5} \div \frac{2}{5} = \frac{3}{5} \times \frac{\square}{\square} = \frac{\square}{\square}$

How did I do? ☆ ☆ ☆

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MATH · DIVIDING FRACTIONS

Divide, then mix it up

Name _____ Date _____

I can divide fractions and tell when to multiply or divide.

1 Divide. Write the answer in simplest form.

Keep, change, flip.

1. $\frac{7}{8} \div \frac{1}{3} =$ ☐
2. $\frac{5}{6} \div \frac{1}{4} =$ ☐
3. $\frac{3}{5} \div \frac{5}{6} =$ ☐
4. $\frac{7}{8} \div \frac{1}{8} =$ ☐
5. $4 \div \frac{3}{5} =$ ☐
6. $\frac{3}{4} \div 2 =$ ☐

2 Multiply or divide?

Check the sign first!

1. $\frac{1}{4} \div \frac{2}{3} =$ ☐
2. $\frac{3}{5} \times \frac{3}{4} =$ ☐
3. $\frac{1}{4} \div \frac{1}{5} =$ ☐
4. $\frac{1}{4} \div \frac{5}{8} =$ ☐
5. $\frac{1}{8} \times \frac{4}{5} =$ ☐
6. $\frac{1}{3} \times \frac{7}{8} =$ ☐

3 Think about it

1. How many halves are in 4? ☐
2. Is 6 ÷ 1/3 more or less than 6? ☐
3. What is the reciprocal of 5? ☐
4. What is 3/4 ÷ 3/4? ☐

How did I do? ☆ ☆ ☆

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Word problems

Name _____ Date _____

I can use fractions to solve problems.

1 Read, think, answer

Show your thinking in the box.

1 Zara has 3 pounds of trail mix. Each bag holds 1/4 pound. How many bags can Zara fill?

Answer:

2 Four friends share 1/2 of a cake equally. What fraction of the whole cake does each friend get?

Answer:

3 A ribbon is 6 feet long. Ali cuts it into pieces that are each 2/3 foot long. How many pieces are there?

Answer:

4 Zara has 3/4 gallon of juice. Each glass holds 1/8 gallon. How many glasses can Zara fill?

Answer:

How did I do? ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

Answer key: dividing fractions

1 Page 1

Quotients: 1) 2 ÷ 1/5 = 10; 2) 5 ÷ 1/8 = 40; 3) 5 ÷ 1/4 = 20; 4) 7 ÷ 1/5 = 35; 5) 8 ÷ 1/2 = 16; 6) 4 ÷ 1/3 = 12; 7) 7 ÷ 1/4 = 28; 8) 6 ÷ 1/8 = 48; 9) 4 ÷ 1/6 = 24.

2 Page 2

Unit fractions: 1) 1/12; 2) 1/10; 3) 1/36; 4) 1/6; 5) 1/15; 6) 1/18.
Reciprocals: 1) 1/6; 2) 5/4; 3) 2/5; 4) 6/5; 5) 8/7; 6) 3.
1) 1/5 × 6/5 = 6/25
2) 4/5 × 3/2 = 12/10 = 1 1/5 (6/5)
3) 1/8 × 8/3 = 8/24 = 1/3
4) 3/5 × 5/2 = 15/10 = 1 1/2 (3/2)

3 Page 3

Divide: 1) 2 5/8 (21/8); 2) 3 1/3 (10/3); 3) 18/25; 4) 7; 5) 6 2/3 (20/3); 6) 3/8.
Multiply or divide: 1) 3/8; 2) 9/20; 3) 1 1/4 (5/4); 4) 2/5; 5) 1/10; 6) 7/24.
Think: 1) 8; 2) More. It is 18; 3) 1/5; 4) 1.

4 Page 4: word problems

1) 3 ÷ 1/4 = 12 bags
2) 1/2 ÷ 4 = 1/8 of the cake
3) 6 ÷ 2/3 = 6 × 3/2 = 9 pieces
4) 3/4 ÷ 1/8 = 3/4 × 8 = 6 glasses

5 Teaching tip

Start with whole numbers divided by unit fractions and draw them. Once children see that 3 ÷ 1/2 means "how many halves are in 3", keep-change-flip stops being a magic trick.

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