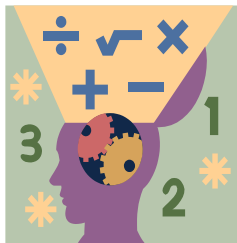


Name: \_\_\_\_\_ Section: \_\_\_\_\_



### Homework

Greetings Scholar and Parents. Hope you are all comfortably settled into the new year. This week we will be working on **Chapter 10 & 11: Multiplying and Dividing with Fractions**. Remember to check **CINEMATH** for reviews! There is no quiz for this week.

### Extra Practice – OPTIONAL THIS WEEK

Additional practice for the daily lessons is available on IXL. To access extra practice, please have your child login into IXL. Under the **“FROM YOUR TEACHER”** section, scholars will find Teacher Assigned Lessons. From there, you will see a list of lessons reinforcing the daily skills.

- Multiply Two Fractions (8KV)
- Scaling Whole Numbers by Fractions: Justify Your Answer (Q7M)
- Scaling Fractions by Fractions (9RF)
- Scaling Mixed Numbers by Fractions (S6B)
- Divide Unit Fractions and Whole Numbers (SPB)
- Relate Division and Fractions (D86)

### Notes

**Completed homework packets should be uploaded or turned in on Sunday November 3rd, 2024.** Students must prove and show all their work in the provide space. Scholars should use a separate sheet of paper if they need additional space. Failure to show work or packets submitted after the due date will result in a lower grade. If a scholar struggles with a lesson, they can review the daily lesson on HMH. Please feel free to contact me with any questions or concerns at [peter.vanegas@archimedean.org](mailto:peter.vanegas@archimedean.org).

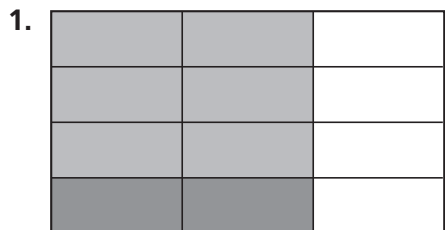
<u>Monday</u>	October 28th	– 10.1
<u>Tuesday</u>	October 29th	– 10.2 & 10.3
<u>Wednesday</u>	October 30th	– 10.4
<u>Thursday</u>	October 31st	– 11.3
<u>Friday</u>	November 1st	– 11.1 & 11.2

# Multiply Fractions

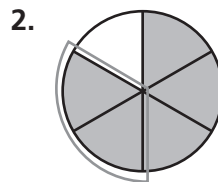
Go Online

Interactive Examples

Find the product.



$$\frac{1}{4} \times \frac{2}{3} = \frac{2}{12}, \text{ or } \frac{1}{6}$$



$$\frac{2}{5} \times \frac{5}{6} = \underline{\hspace{2cm}}$$

Find the product. Draw a model.

3.  $\frac{4}{5} \times \frac{1}{2} = \underline{\hspace{2cm}}$

4.  $\frac{3}{4} \times \frac{1}{3} = \underline{\hspace{2cm}}$

5.  $\frac{3}{8} \times \frac{2}{3} = \underline{\hspace{2cm}}$

6.  $\frac{3}{5} \times \frac{3}{5} = \underline{\hspace{2cm}}$

## Problem Solving

7. Nora has a piece of ribbon that is  $\frac{3}{4}$  yard long. She will use  $\frac{1}{2}$  of it to make a bow. What length of the ribbon in yards will she use for the bow?

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8. Marlon bought  $\frac{7}{8}$  pound of turkey at the deli. He used  $\frac{2}{3}$  of it to make sandwiches for lunch. How much turkey in pounds did Marlon use for sandwiches?

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## Lesson Check

9. Tina has  $\frac{3}{5}$  pound of rice. She will use  $\frac{2}{3}$  of it to make fried rice for her family. How much rice in pounds will Tina use to make fried rice?
10. The Waterfall Trail is  $\frac{3}{4}$  mile long. At  $\frac{1}{6}$  of the distance from the trailhead, there is a lookout. In miles, how far is the lookout from the trailhead?

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# Compare Relative Size of Products to Fraction Factors

Go Online

Interactive Examples

Complete the statement with *equal to*, *greater than*, or *less than*.

1.  $\frac{3}{5} \times \frac{4}{7}$  will be \_\_\_\_\_ less than  $\frac{4}{7}$ .

2.  $5 \times \frac{7}{8}$  will be \_\_\_\_\_  $\frac{7}{8}$ .

Think:  $\frac{4}{7}$  is multiplied by a number less than 1;

so,  $\frac{3}{5} \times \frac{4}{7}$  will be less than  $\frac{4}{7}$ .

3.  $6 \times \frac{2}{5}$  will be \_\_\_\_\_  $\frac{2}{5}$ .

4.  $\frac{1}{9} \times 1$  will be \_\_\_\_\_  $\frac{1}{9}$ .

5.  $\frac{4}{9} \times \frac{3}{8}$  will be \_\_\_\_\_  $\frac{3}{8}$ .

6.  $\frac{4}{5} \times \frac{7}{7}$  will be \_\_\_\_\_  $\frac{4}{5}$ .

## Problem Solving

7. Shani is making hot cocoa. She plans to multiply the recipe by 4 to make enough hot cocoa for the whole class. If the recipe calls for  $\frac{1}{2}$  teaspoon vanilla extract, will she need more than  $\frac{1}{2}$  teaspoon or less than  $\frac{1}{2}$  teaspoon of vanilla extract to make all the hot cocoa?
- \_\_\_\_\_

8. Miles is planning to spend  $\frac{2}{3}$  as many hours cycling this week as he did last week. Is Miles going to spend more hours or fewer hours cycling this week than last week?
- \_\_\_\_\_

# Compare Relative Size of Products with Fraction Multiplication

Go Online

Interactive Examples

Find the product.

1.  $\frac{4}{5} \times \frac{7}{8} = \frac{4 \times 7}{5 \times 8}$

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

3.  $\frac{5}{9} \times \frac{3}{4}$

4.  $\frac{4}{7} \times \frac{1}{2}$

5.  $\frac{1}{8} \times 20$

 $\frac{28}{40}$ , or  $\frac{7}{10}$ 

6. Ciara raked  $\frac{3}{5}$  of the yard. Minni raked  $\frac{1}{3}$  of the amount Karen raked. How much of the yard did Minni rake?

7. In the pet show,  $\frac{3}{8}$  of the pets are dogs. Of the dogs,  $\frac{2}{3}$  have long hair. What fraction of the pets are dogs with long hair?

**Algebra** Evaluate for the given value of the variable.

8.  $\frac{7}{8} \times c$  for  $c = 8$

9.  $t \times \frac{3}{4}$  for  $t = \frac{8}{9}$

10.  $\frac{1}{2} \times s$  for  $s = \frac{3}{10}$

11.  $y \times 6$  for  $y = \frac{2}{3}$

## Problem Solving

12. Peja ran  $\frac{5}{7}$  of the distance around the school track. Sara ran  $\frac{4}{5}$  of Peja's distance. What fraction of the total distance around the track did Sara run?

13. A group of students attend a math club. Half of the students are boys and  $\frac{4}{9}$  of the boys have brown eyes. What fraction of the group are boys with brown eyes?

## Compare Relative Size of Products to Mixed Number Factors

Go Online

Interactive Examples

Complete the statement with *equal to*, *greater than*, or *less than*.

1.  $\frac{2}{3} \times 1\frac{5}{8}$  will be \_\_\_\_\_ **less than**  $1\frac{5}{8}$ .

Think:  $1 \times 1\frac{5}{8}$  is  $1\frac{5}{8}$ .

Since  $\frac{2}{3}$  is less than 1,

$\frac{2}{3} \times 1\frac{5}{8}$  will be less than  $1\frac{5}{8}$ .

2.  $\frac{5}{5} \times 2\frac{3}{4}$  will be \_\_\_\_\_  $2\frac{3}{4}$ .

3.  $3 \times 3\frac{2}{7}$  will be \_\_\_\_\_  $3\frac{2}{7}$ .

4.  $9 \times 1\frac{4}{5}$  will be \_\_\_\_\_  $1\frac{4}{5}$ .

5.  $1\frac{7}{8} \times 2\frac{3}{8}$  will be \_\_\_\_\_  $2\frac{3}{8}$ .

6.  $3\frac{4}{9} \times \frac{5}{9}$  will be \_\_\_\_\_  $3\frac{4}{9}$ .

### Problem Solving

7. Karim is making a scale drawing of a doghouse. The dimensions of the drawing will be  $\frac{1}{8}$  of the dimensions of the actual doghouse. The height of the actual doghouse is  $36\frac{3}{4}$  inches. Will the dimensions of Karim's drawing be equal to, greater than, or less than the dimensions of the actual doghouse?

\_\_\_\_\_

8. Jorge has a recipe that calls for  $2\frac{1}{3}$  cups of flour. He plans to make  $1\frac{1}{2}$  times the recipe. Will the amount of flour Jorge needs be equal to, greater than, or less than the amount of flour his recipe calls for?

\_\_\_\_\_

9.  **WRITE** *Math* Explain how scaling a mixed number by  $\frac{1}{2}$  will affect the size of the number.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Lesson Check

10. Jenna skis  $2\frac{1}{3}$  miles down the mountain. Her instructor skis  $1\frac{1}{2}$  times as far. Does Jenna ski a lesser, greater, or the same distance as her instructor?
11. Suppose you multiply a fraction less than 1 by the mixed number  $2\frac{3}{4}$ . Will the product be less than, greater than, or equal to  $2\frac{3}{4}$ ?

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# Interpret a Fraction as Division

**Go Online**

Interactive Examples

**Complete the equation to solve.**

1. Six students share 8 apples equally. How many apples does each student get?

$$8 \div 6 = \underline{\frac{8}{6}, \text{ or } 1\frac{2}{6}}$$

2. Ten boys share 7 cereal bars equally. What fraction of a cereal bar does each boy get?

$$7 \div 10 = \underline{\hspace{2cm}}$$

3. Eight friends share 12 burritos equally. How many burritos does each friend get?

$$12 \div 8 = \underline{\hspace{2cm}}$$

4. Three girls share 8 yards of fabric equally. How many yards of fabric does each girl get?

$$8 \div 3 = \underline{\hspace{2cm}}$$

5. Five bakers share 2 loaves of bread equally. What fraction of a loaf of bread does each baker get?

$$2 \div 5 = \underline{\hspace{2cm}}$$

6. Nine friends share 6 bananas equally. What fraction of a banana does each friend get?

$$6 \div 9 = \underline{\hspace{2cm}}$$

## Problem Solving

7. There are 12 students in a jewelry-making class and 8 sets of charms. What fraction of a set of charms will each student get?


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8. Five friends share 6 fruit snacks equally. How many fruit snacks will each friend get?

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9.  **WRITE** *Math* Sezni divides 8 pounds of dog food equally among 6 dogs. Draw a diagram and explain how you can use it to find the amount of food each dog receives.

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## Lesson Check

- 10.** Four friends share 8 bunches of grapes equally. How many bunches of grapes will each friend get?
- 11.** Ten students share 8 pieces of poster board equally. What fraction of a piece of poster board does each student get?

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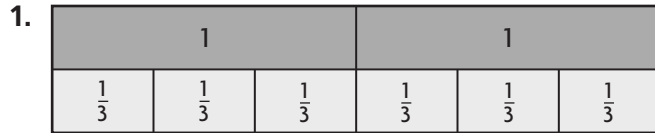
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# Divide Whole Numbers and Unit Fractions

Go Online

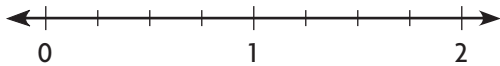
Interactive Examples

Divide and check the quotient.



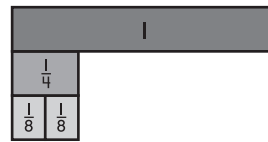
$$2 \div \frac{1}{3} = \underline{6} \text{ because } \underline{6} \times \frac{1}{3} = 2.$$

2.



$$2 \div \frac{1}{4} = \underline{\quad} \text{ because } \underline{\quad} \times \frac{1}{4} = 2.$$

3.



$$\frac{1}{4} \div 2 = \underline{\quad} \text{ because } \underline{\quad} \times 2 = \frac{1}{4}.$$

Divide. Draw a number line or use fraction strips.

4.  $1 \div \frac{1}{5} = \underline{\quad}$

5.  $\frac{1}{6} \div 3 = \underline{\quad}$

6.  $4 \div \frac{1}{6} = \underline{\quad}$

7.  $3 \div \frac{1}{3} = \underline{\quad}$

8.  $\frac{1}{4} \div 6 = \underline{\quad}$

9.  $5 \div \frac{1}{4} = \underline{\quad}$

## Problem Solving

10. Thuy can run  $\frac{1}{10}$  mile per minute. How many minutes will it take Thuy to run 3 miles?

\_\_\_\_\_

11. Derrick has 3 yards of ribbon to use for wrapping gifts. He cuts the ribbon into pieces that are  $\frac{1}{4}$  yard long. How many pieces of ribbon does Derrick have?

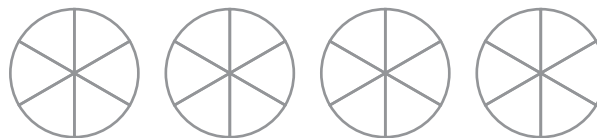
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## Relate Multiplication and Division of Fractions

**Go Online**

Interactive Examples

1. Sebastian bakes 4 pies and cuts each pie into sixths. How many  $\frac{1}{6}$ -size pie slices does he have?



To find the total number of sixths in the 4 pies, multiply the number of sixths in each pie by the number of pies.  $4 \div \frac{1}{6} = 4 \times 6 = 24$  one-sixth-pie slices

2. Ali has 2 vegetable pizzas that she cuts into eighths. How many  $\frac{1}{8}$ -size pieces does she have?

3. A baker has 6 loaves of bread. Each loaf weighs 1 pound. He cuts each loaf into thirds. How many  $\frac{1}{3}$ -pound loaves of bread does the baker now have?

4. Suppose the baker has 4 loaves of bread and cuts the loaves into halves. How many  $\frac{1}{2}$ -pound loaves of bread would the baker have?

5. Madalyn has 3 watermelons that she cuts into halves to give to her neighbors. How many neighbors will get a  $\frac{1}{2}$ -size piece of watermelon?

6. For 6a–6c, select whether each equation is True or False.

6a.  $6 \times \frac{1}{3} = 18$

☐ True☐ False

6b.  $20 = 5 \div \frac{1}{4}$

☐ True☐ False

6c.  $6 + 2 = 4 \div \frac{1}{2}$

☐ True☐ False