

## ***5<sup>th</sup> Grade Math: Multiplying & Dividing Fractions***

Dear Parents/Families,

In your student's math class, the upcoming course of study deals with Multiplying & Dividing Fractions. Your child will use the meaning of fractions and of multiplication and division to explain why the procedures for multiplying and dividing fractions make sense.

In fourth grade, students multiplied fractions by a whole number, and worked to understand the relationship between multiplication and division.

By the end of this course of study, the following statements describe what your student will be able to do:

- I can multiply a fraction or a whole number by a fraction. 5.NF.4
- I can think of multiplication as the scaling of a number (similar to a scale on a map.) 5.NF.5
- I can solve real world problems by multiplying fractions and mixed numbers. 5.NF.6
- I can divide fractions by whole numbers and whole numbers by fractions. 5.NF.7

Next year in sixth grade, students will compute quotients of fractions and solve word problems involving division of fractions.

Vocabulary terms important to this course of study:

Scaling (drawing to scale), like/unlike denominators, equivalent/equal, units, estimate, benchmark fractions, fraction, mixed number, factor, product, equivalence, factor, multiple, numerator, denominator, operations, unit fraction

**Additionally, the back of this paper has the IXL standards that can be practiced at home that correlate with this cluster.**

If you have any questions about this new topic of study, please don't hesitate to contact a grade level teacher or our math coach. Thank you!

Sincerely,

Miss Owen, Mrs. Reilley and Mrs. Rogers

5.NF.4

**Multiplying & Dividing Fractions**

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## **5.NF.4**

- Multiply fractions by whole numbers I (Fifth grade - M.5)
- Multiply fractions by whole numbers II (Fifth grade - M.8)
- Multiply fractions by whole numbers: input/output tables (Fifth grade - M.11)
- Multiply two unit fractions using models (Fifth grade - M.12)
- Multiply two fractions using models: fill in the missing factor (Fifth grade - M.13)
- Multiply two fractions using models (Fifth grade - M.14)
- Area of squares and rectangles (Fifth grade - Z.16)
- Area and perimeter: word problems (Fifth grade - Z.22)

## **5.NF.5**

- Scaling whole numbers by fractions (Fifth grade - M.17)
- Scaling fractions by fractions (Fifth grade - M.18)
- Scaling mixed numbers by fractions (Fifth grade - M.19)
- Multiply two fractions using models (Fifth grade - M.14)

## **5.NF.6**

- Multiply fractions by whole numbers: word problems (Fifth grade - M.10)
- Multiply two fractions (Fifth grade - M.15)
- Multiply two fractions: word problems (Fifth grade - M.16)
- Multiply a mixed number by a whole number (Fifth grade - M.23)
- Multiply a mixed number by a fraction (Fifth grade - M.24)
- Multiply two mixed numbers (Fifth grade - M.25)
- Multiplication with mixed numbers: word problems (Fifth grade - M.27)
- Multiply fractions and mixed numbers in recipes (Fifth grade - M.28)
- Add, subtract, multiply, and divide fractions and mixed numbers (Fifth grade - O.7)
- Add, subtract, multiply, and divide fractions and mixed numbers: word problems (Fifth grade - O.8)

## **5.NF.7**

- Divide unit fractions by whole numbers (Fifth grade - N.1)
- Divide fractions by whole numbers (Fifth grade - N.4)
- Divide whole numbers by unit fractions (Fifth grade - N.2)
- Divide whole numbers by unit fractions using models (Fifth grade - N.7)
- Divide whole numbers by fractions (Fifth grade - N.8)
- Divide whole numbers and unit fractions (Fifth grade - N.3)
- Divide unit fractions by whole numbers: word problems (Fifth grade - N.6)

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