

Key

Multiplying and Dividing Fraction Notes

Multiplying Fractions

Steps for Multiplying Fractions

1. Write all mixed/whole numbers as improper fractions
2. Cross Simplify if possible.
3. Multiply numerators, Multiply denominators
4. Simplify (if needed)

Examples:

$2\frac{3}{4} \cdot 1\frac{1}{5}$

$2\frac{11}{4} \cdot 1\frac{1}{5}$

$\frac{33}{10} = 3\frac{3}{10}$

$3\frac{3}{10}$

$\frac{7}{9} \cdot \frac{3}{4}$

$\frac{7}{12}$

You can cross simplify! Divide 4 and 6 by 2!

Cross simplify! You can divide both 4 and 9 by 3

Dividing Fractions

Dividing by a fractions is the same thing as multiplying by it's reciprocal.

Reciprocal- flipped fraction

The reciprocal of $\frac{2}{3}$ is $\frac{3}{2}$

The reciprocal of 5 is $\frac{1}{5}$

Steps

1. Write all mixed/whole numbers as improper fractions
2. SKIP, Flip, MULTIPLY.
3. Simplify (if needed)

Examples:

$7 \div \frac{1}{3}$

$\frac{7}{1} \div \frac{1}{3}$

$\frac{7}{1} \cdot \frac{3}{1} = \frac{21}{1} = 21$

skip, flip, multiply →

$2\frac{3}{4} \div \frac{1}{4}$

$2\frac{11}{4} \div \frac{1}{4}$

$\frac{11}{4} \cdot \frac{4}{1} = \frac{44}{1} = 44$

skip, flip, multiply →