Rational Forms and Conversion

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Improper Fraction: $\frac{11}{5}$

An improper fraction is a number greater than or equal to 1, where the numerator is greater than or equal to the denominator.

(note: $^{6}/_{6}$ is equal to 1 and is an improper fraction)

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(note: $^{6}/_{6}$ is equal to 1 and is an improper fraction)

Mixed Number: $5\frac{1}{3}$

A mixed number is a number greater than 1, which uses a whole number and a proper fraction.

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Decimal Number to Fraction:

1. Write a fraction with the decimal number as the numerator and 1 as the denominator
2. Count the decimal places to move to get whole number then multiply numerator and denominator by that power of 10
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• Write as fraction	$\frac{1.62}{1}$
• Count Decimal Places and multiply by 10^x	$\frac{1.62}{1}$

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• Find GCD	Factors of 162: 1, 2, 3, 6, 9, 18, 27, 54, 81, 162 Factors of 100: 1, 2, 4, 5, 10, 20, 25, 50, 100

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For example: convert 1.62 to a fraction.

- Write as fraction

$$\frac{1.62}{1}$$

- Count Decimal Places and multiply by 10^x

$$\frac{1.62}{1} \qquad 10^2 = 100 \qquad \frac{1.62 \times 100}{1 \times 100} = \frac{162}{100}$$

(1 2)

- Find GCD

Factors of 162: 1, 2, 3, 6, 9, 18, 27, 54, 81, 162
Factors of 100: 1, 2, 4, 5, 10, 20, 25, 50, 100

GCD is 2

- Divide numerator and denominator

$$\frac{162 \div 2}{100 \div 2}$$

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• Find GCD	Factors of 162: 1, 2, 3, 6, 9, 18, 27, 54, 81, 162 Factors of 100: 1, 2, 4, 5, 10, 20, 25, 50, 100 GCD is 2
• Divide numerator and denominator	$\frac{162 \div 2}{100 \div 2} = \frac{81}{50}$

So 1.62 as a fraction is $81/50$

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For example: convert 1.62 to a fraction.

- Write as fraction

$$\frac{1.62}{1}$$

- Count Decimal Places and multiply by 10^x

$$\frac{1.62}{1} \qquad 10^2 = 100 \qquad \frac{1.62 \times 100}{1 \times 100} = \frac{162}{100}$$

- Find GCD

Factors of 162: 1, 2, 3, 6, 9, 18, 27, 54, 81, 162
Factors of 100: 1, 2, 4, 5, 10, 20, 25, 50, 100

GCD is 2

- Divide numerator and denominator

$$\frac{162 \div 2}{100 \div 2} = \frac{81}{50}$$

So 1.62 as a fraction is $81/50$

The best way to convert from fraction to decimal is to use a calculator and divide numerator by denominator.

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Improper Fraction to Mixed Number:

1. Divide numerator by denominator noting the whole number and the remainder
2. Write down the whole number then the remainder over the original denominator

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For example: convert $^{124}/_{50}$ to a mixed number

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Improper Fraction to Mixed Number:

1. Divide numerator by denominator noting the whole number and the remainder
2. Write down the whole number then the remainder over the original denominator

For example: convert $^{124}/_{50}$ to a mixed number

- Divide and note whole number and remainder

$124 \div 50 = 2$ with remainder of 24

Rational Forms and Conversion

Improper Fraction to Mixed Number:

1. Divide numerator by denominator noting the whole number and the remainder
2. Write down the whole number then the remainder over the original denominator

For example: convert $^{124}/_{50}$ to a mixed number

- Divide and note whole number and remainder

$124 \div 50 = 2$ with remainder of 24

- Write whole number and remainder over denominator

$$2\frac{24}{50}$$

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Improper Fraction to Mixed Number:

1. Divide numerator by denominator noting the whole number and the remainder
2. Write down the whole number then the remainder over the original denominator

For example: convert $^{124}/_{50}$ to a mixed number

• Divide and note whole number and remainder	$124 \div 50 = 2$ with remainder of 24
• Write whole number and remainder over denominator	$2\frac{24}{50}$

So $^{124}/_{50}$ as a mixed number is $2\ ^{24}/_{50}$

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Mixed Number to Improper Fraction:

1. Multiply whole number by denominator
2. Add the result to the numerator

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For example: convert $3\ {}^{4}/_{5}$ to an improper fraction.

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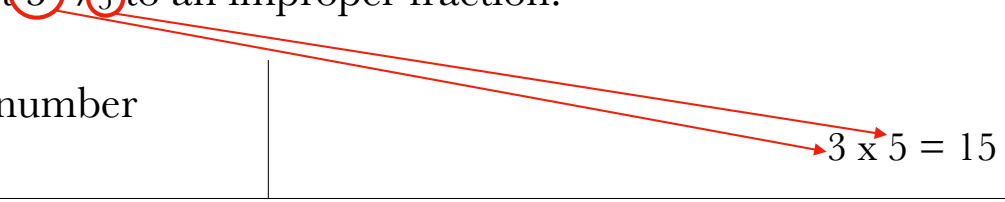
For example: convert $3\frac{4}{5}$ to an improper fraction.



• Multiply whole number by denominator	3 x 5 = 15

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Mixed Number to Improper Fraction:

1. Multiply whole number by denominator
2. Add the result to the numerator

For example: convert $3\frac{4}{5}$ to an improper fraction.

- Multiply whole number by denominator

$3 \times 5 = 15$

- Add that to the numerator

$$\frac{15 + 4}{5} = \frac{19}{5}$$

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Mixed Number to Improper Fraction:

1. Multiply whole number by denominator
2. Add the result to the numerator

For example: convert $3\ ^{4}/_{5}$ to an improper fraction.

• Multiply whole number by denominator	$3 \times 5 = 15$
• Add that to the numerator	$\frac{15 + 4}{5} = \frac{19}{5}$

So $3\ ^{4}/_{5}$ as an improper fraction is $^{19}/_{5}$