 Reducing

To reduce a fraction, means to make it into smaller numbers or to simplify it. For example, the fraction 8/12can be reduced. First you have to find the common factors, and then look for the (GCF) or greatest common factor. The (GCF) for 8/12 is 4. Next, you would divide 8 by 4 and you would get 2 for your new numerator. Then you would divide 12 by 4 and get 3 for your new denominator. So the new fraction all reduced would be 2/3

Practice Problems

(Practice these problems on your own)

1.) 2.)

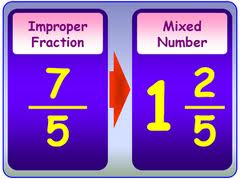
3.) 4.)

5.) 6.)

7.) 8.)

9.) 10.)

Mixed Numbers and Improper Fractions



Mixed numbers and improper fractions are actually very easy to understand. First off, a mixed number is a whole number with a fraction and an improper fraction is when the numerator is of greater value than the denominator to turn an improper fraction into a mixed number you have to see how many times the denominators goes into the numerator and if it only goes in once then the whole number is 1. To turn a mixed number into an improper fraction you have to multiply the whole number by the denominator, then you add it to the numerator and the denominator will be the same as it was before you multiplied. EX: is the same as 2. EX: 2 is the same as

Practice Problems

1.) 2.) 3.)

4.) 5.) 6.) 3

7.) 2 8.) 5 9.) 4

10.) 7

Common Denominators

Common denominators are when the denominators are the same. You would usually use common denominators to add fractions. To find a common denominator, you first need to find a few multiples for each of the denominators. Next, you need to look to see what the first multiple they have in common is. Finally, you need to find out what you multiplied to get the common denominator and you will then want to multiply that number by the numerator to get the numerator. For example: the common denominator for and is 12 because the multiples for the number 4 in 3/4 are 4, 8, 12, and 16.The multiples for the number 3 in 2/3 are 3, 6, 9, 12, and 15. The common denominator would be 12 because that was the first multiple that they had in common.

Practice Problems

1.)3/4 and 5/6 2.) 2/3 and 4/6 3.) 4/5 and 3/6

4.) 1/3 and 9/10 5.) 11/12 and 3/4 6.) 1/2 and 4/12

7.) 5/6 and 4/8 8.) 6/14 and 3/12 9.) 8/9 and 1/5

10.) 3/7 and 6/8

Reciprocals

The reciprocal of a fraction is when you take the fraction and you take the numerator and the denominator and you just simply switch them around. For example: the reciprocal for 3/4 is 4/3because you just switch the numerator and the denominator around.

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Practice Problems

1. 2/3 = 2.) 4/5= 3.) 7/8=

4.) 1/2= 5.) 5/6= 6.)14/15=

7.) 56/64= 8.)15/16= 9.)23/78=

10.) 45,568/ 25,649=

Adding And Subtracting

(Including Mixed Numbers)

To add and subtract fractions you have to have common denominators. Then once you have the common denominators you have to add or subtract the numerators and denominators. And if you have whole numbers then you have to make them into improper fractions

For example: 2/3 + 4/5=11/15 Example: 1 1/3 + 2 4/5= 31/15

10/15 + 12/15 = 22/30 4/3 + 14/5 =

20/15 + 42/15 =62/30

Example: 4/5 – 3/4 = 1/20 Example: 2 5/6 – 1 2/5 = 13/30

16/20 – 15/20 = 1/20 2 – 1 = 1 25/30 – 12/30 = 13/30

Practice Problems

1. 5/6 + 4/5 = 2.) 2/3 – 1/3 = 3.) 7/8 + 2/5 = 4.) 7/8 – 1/5 =

5.) 2/4 + 5/6 = 6.) 5 5/6 – 2 1/3 = 7.) 6 4/5 + 4 3/5 =

8.) 8 5/15 – 2 1/5 = 9.) 3 5/10 + 5 6/8= 10.) 2 1/2 – 1 1/3 =

Multiplying And Dividing Fractions

To multiply fractions, you first need to multiply the numerators with each other to get the product, which is the new numerator. Next, you need to multiply the denominators to get the new denominator. To divide fractions, you first need to take the first fraction and multiply it by the reciprocal of the second fraction. Finally, you need to reduce the improper fraction to mixed number form.

Example: 1/2 \* 1/3 = 1/6 Example: 1/2 ÷ 1/3 = 1 1/2

1/2 \* 3/1 = 3/2 = 1 ½

Practice Problems

1. 1/4 \* 1/3 = 2.) 5/6 \* 2/3 = 3.) 3/4 \* 2/5 =

4.) 3/6 \* 1/5 = 5.) 2/3 \* 4/5 = 6.) 5/6 ÷ 3/4 =

7.) 4/7÷ 5/8 = 8.) 3/4 ÷ 3/9 = 9.) 60/120 ÷ 40/80=

10.) 20/30 ÷ 10/30=

Fractions Around You

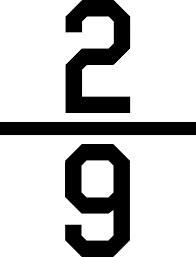
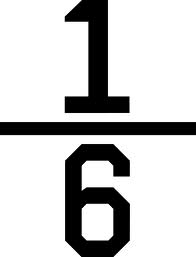
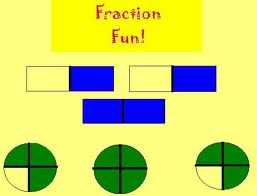
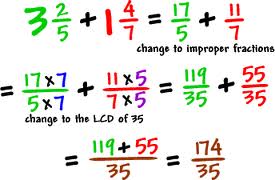
     

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Answers to Odd Problems

Reducing

1) = 1/3 3) = 2/3 5) = 1/4 7) = 1/7 9) = 1/9

Mixed Numbers/ Improper Factions

1. = 4 3) = 7 5) = 5 7) =21/8 9) = 31/7

Common Denominators

1. = 12 3) = 30 5) = 12 7) = 24 9) = 45

Reciprocals

1) = 3/2 3) = 8/7 5) = 6/5 7) = 64/56 9) = 78/23

Adding/subtracting (including mixed numbers)

1. = 1 19/30 3) = 1 11/40 5) = 1 1/3 7) = 11 2/5 9) = 9 1/4

Multiplying and dividing

1. = 1/12 3) = 3/10 5) = 8/15 7) = 32/35 9) = 1

Word problems

1. = Ethan 1/2 3) = 1/2 5) = 3/4 7) = Zoe 8/12 9) = 19/24