D.N.J.’s

FRACTIONS

AND

MIXED NUMBERS



A Montgomery 7th Grade Textbook

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**Introducing Fractions**

**\*A fraction is a part-to-whole comparison**

**\*A fraction is made of 2 parts… the *numerator (the top number)* and the *denominator (the bottom number).***

**DNJ PRACTICE PROBLEMS**

1. **Which is the numerator, the denominator? 12=\_\_\_\_, 90=\_\_\_\_\_**
2. **The numerator is 10, the denominator is70.Make a fraction using the numerator and denominator.**
3. **Damien says in the fraction the 34 is the denominator, is he correct? Explain. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
4. **Noah stops Damien and says “Wow, no 12 is the denominator, not 34” Is Noah correct? Explain.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
5. **Jacob said “I have of a pizza” and Marley replies “Oh, so 6 is the amount of pieces you started with.” Is Marley correct this time? Why or why not, Explain.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Andrea got 2 people to come to her house out of 5 who were supposed to go so she said “oh, that went well, people came!” Is Andrea correct? Why or why not? Explain.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **Zack had 5 visitors at his house, 12 people were supposed to come. Damien says that 17 people were supposed to come altogether. Is hecorrect?.Explain.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**END OF D.N.J. PROBLEMS FOR SECTION 1**

**ADDING AND SUBTRACTING**

**FRACTIONS AND MIXED**

**NUMBERS**

**To add and subtract fractions you must be sure to have common denominators: + = + =**

**Then add the numerators ( but not the denominators)**

**So, + =**

**But wait, there’s more, to get full credit most teachers say you must simplify your fractions! To simplify your fraction you find the greatest common factor. Next, divide the numerator and denominator by the greatest common factor to get the simplified fraction. =**

**8:1, 2, 4, 8 10: 1, 2, 5, 10**

**Therefore, the answer is .**

**D.N.J. PRACTICE PROBLEMS**

**1. 1 - =\_\_\_**

**2. 1 - 1=\_\_\_**

**3. 4 - 4=\_\_\_**

**4. - =\_\_\_**

**5. - =\_\_\_\_\_**

**6. + =\_\_\_\_\_\_\_\_\_\_**

**7. - =\_\_\_**

**8. \_\_\_**

**9. = \_\_\_**

**10. 1**

**END OF D.N.J. PRACTICE PROBLEMS FOR SECTION 2**

**MULTIPLYING AND DIVIDING**

**FRACTIONS AND MIXED NUMBERS**

**For multiplying and dividing mixed numbers you,**

**1.Change each number to a improper fraction.**

**2.Simplify if possible.**

**3.Multiply the numerators then the denominators.**

**4.Put answers in lowest terms.(simplify)**

**5.Check to be sure the answer makes sense.**

**EXAMPLE: 5**

**=**

**= 1**

**Use estimation and rounding to check your answer. 5 , 1 is close to .**

**To divide fractions and mixed numbers you,**

1. **Change each mixed number to an improper fraction.**
2. **Multiply by the reciprocal of the divisor, simplifying if possible.**
3. **Put answer in lowest terms.**
4. **Check to be sure the answer makes sense.**

**D.N.J PRACTICE PROBLEMS**

**1. 1 =**

**2.**

**3. 1 =**

**4. 1 =**

**5. 1**

**6. 1 =**

**7.**

**8.**

**9.**

**10.**

**COMPARING AND ORDERING FRACTIONS AND MIXED NUMBERS**

**To order fractions, you must find common denominators.**

**Then, if the problem says put them in order least to greatest**

**Put the smaller fraction first, then the larger one and vice-versa.**

**To compare fractions, first find common denominators, then put this symbol ( ) in if the first number is greater than the number in the back. Put this symbol () if the number in the front is less than the number in the back.**

**= WHICH MEANS**

**D.N.J. PRACTICE PROBLEMS**

**1.**

**2.?**

**3.12?**

**4.3**

**5.?**

**6. put them in least to greatest**

**7. put in least to greatest**

**8. put them in least to greatest**

**9. put them in greatest to least**

**10. put it in least to greatest**

**GLOSSARY**

***Numerator-* The top number in a fraction**

***Denominator-* The bottom number in a fraction.**

**ANSWER KEY**

**SECTION 1**

**1. Numerator, Denominator**

**3. No, 34 is the numerator**

**5. No, 100 is, it is the denominator**

**7. No, 12 people were supposed to come**

**SECTION 2**

**1. 1**

**3.**

**5.**

**7.**

**9.2**

**S3CTION 3**

**1.**

**3.**

**5.**

**7.2**

**9.5**

**SECTION 4**

**1.=**

**3.>**

**5.>**

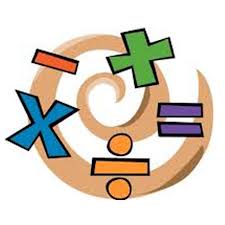
**7.**

**9.**

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