PROBLEMS AND SOLUTIONS - INTRODUCTION TO FRACTIONS

Prepared by Ingrid Stewart, Ph.D., College of Southern Nevada

Please Send Questions and Comments to ingrid.stewart@csn.edu. Thank you!

YOU MUST BE ABLE TO DO THE FOLLOWING PROBLEMS WITHOUT A CALCULATOR!

The solutions are listed below the problem set!

Problem 1:

$\frac{3}{4}$ is a fraction reduced to lowest terms. Neither the 3 nor the 4 have a factor (other than 1) in common. It is considered to be the FIRST MEMBER of a **family of fractions**.

Find other family members by multiplying both the numerator and the denominator of the FIRST MEMBER by 2, 3, 4, and 5.

Problem 2:

Find the value of $\frac{2}{0}$.

Problem 3:

Find the value of $\frac{0.78}{0}$.

Problem 4:

Find the value of $\frac{0}{2}$.

Problem 5:

Find the value of $\frac{0}{0.78}$.

Problem 6:

Find the value of $\frac{0}{0}$.

Problem 7:

Write the number 2 as three different fractions using 1, 2, and 3 as the denominator.

Problem 8:

Write the number 0 as three different fractions using 1, 2, and 100,000 as the denominator.

Problem 9:

Reduce $\frac{2}{2}$ to lowest terms.

Problem 10:

Reduce $\frac{1.23}{1.23}$ to lowest terms.

Problem 11:

Reduce $\frac{12}{80}$ to lowest terms.

Problem 12:

At a concert, 120 of 348 available seats were occupied. Express this finding in fractional form reduced to lowest terms.

Problem 13:

Write the improper fraction $\frac{7}{2}$ as a mixed number.

Problem 14:

Write the improper fraction $\frac{235}{17}$ as a mixed number.

Problem 15:

Write the mixed number $3\frac{1}{2}$ as an improper fraction.

Problem 16:

Write the mixed number $21\frac{5}{6}$ as an improper fraction.

Problem 17:

Write the fraction $\frac{3}{4}$ as a decimal without using the calculator.

Problem 18:

Write the fraction $\frac{1}{10}$ as a decimal without using the calculator.

Problem 19:

Write the fraction $\frac{3}{10}$ as a decimal without using the calculator.

Problem 20:

Write the fraction $\frac{1}{100}$ as a decimal without using the calculator.

Problem 21:

Write the fraction $\frac{67}{100}$ as a decimal without using the calculator.

Problem 22:

Write the fraction $\frac{1}{1000}$ as a decimal without using the calculator.

Problem 23:

Write the fraction $\frac{81}{1000}$ as a decimal without using the calculator.

Problem 24:

Write the fraction $\frac{213}{1000}$ as a decimal without using the calculator.

Problem 25:

Write the fraction $\frac{2}{3}$ as a decimal without using the calculator.

Problem 26:

Write the fraction $\frac{9}{11}$ as a decimal without using the calculator.

Problem 27:

Write the mixed number $15\frac{7}{8}$ as a number containing a whole and a decimal part.

Problem 28:

Write ***0.7*** as a fraction.

Problem 29:

Write ***0.39*** as a fraction.

Problem 30:

Write ***0.065*** as a fraction.

Problem 31:

Write ***0.0001*** as a fraction.

Problem 32:

Write ***0.01*** as a fraction.

Problem 33:

Write the mixed number ***45.153*** as a mixed number containing a fraction.

Problem 34:

Multiplying the number ***135,000*** by ***0.001*** is equivalent to dividing ***135,000*** by what number?

Problem 35:

Multiplying some number by ***0.1*** is equivalent to dividing this number by what number?

Problem 36:

Multiplying some number by ***0.00001*** is equivalent to dividing this number by what number?

SOLUTIONS

You can find detailed solutions below the link for this problem set!

1. $\frac{6}{8}, \frac{9}{12}, \frac{12}{16}, \frac{15}{20}$	2. undefined	3. undefined
4. 0	5. 0	6. indeterminate
7. $\frac{2}{1}, \frac{4}{2}, \frac{6}{3}$	8. $\frac{0}{1}, \frac{0}{2}, \frac{0}{100,000}$	9. 1
10. 1	11. $\frac{3}{20}$	12. $\frac{10}{29}$
13. $3\frac{1}{2}$	14. $13\frac{14}{17}$	15. $\frac{7}{2}$
16. $\frac{131}{6}$	17. 0.75	18. 0.1
19. 0.3	20. 0.01	21. 0.67
22. 0.001	23. 0.081	24. 0.213
25. $0.\bar{6}$	26. $0.\overline{81}$	27. 15.875
28. $\frac{7}{10}$	29. $\frac{39}{100}$	30. $\frac{13}{200}$
31. $\frac{1}{10,000}$	32. $\frac{1}{100}$	33. $45\frac{153}{1,000}$
34. 1,000	35. 10	36. 100,000