**Percent - Fraction - Decimal Landscape of Problems VII - X**

**Word Problem Types**

*3 Dimensions: Objective, Application, Number Variation*

1. Read a decimal number *properly*. (2.03 is “two and three hundredths”)

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|  | Decimal part only | “Mixed” | Decimal part includes zeros immediately to the right of the decimal |
| Read .62 | Read 5.6 | Read 5.002 |
| Read the decimal number | In the video game, the character’s *health* is .47. Read this decimal. | The weight of the gold was 2.36 ounces. Read this decimal. | After investing money in the mutual fund, Karen owned 67.031 shares of the mutual fund. Read this decimal. |

1. Convert fractions (and mixed numbers) to decimals and to percents.

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|  | | Terminates | Repeats | Decimal less than .01  (Percent less than 1%) | Decimal greater than 1  (Percent greater than 100%) |
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| Convert fractions (and mixed numbers) to decimals | Express as a decimal. | Thirty-six of forty students passed the fitness test on their first attempt . Express this fraction as a decimal. | Willie has 4 hits in 11 at-bats . What is Willie’s batting average? Round the decimal to three places. | In the blood test 3 mg of the drug were found in 400 mg of blood . Convert this fraction to a decimal. | One serving is 4 ounces. We have 10 ounces. Express the fraction as a decimal to state how many servings we have. |
| Convert fractions (and mixed numbers) to percent | Express as a percent. | The fraction of students with a Facebook account is . What percent have a Facebook account? | The probability of rolling a 7 with two dice is is . What is the percent chance of rolling a 7? (Round to one decimal place in the percent, if needed.) | Only 3 children out of every 1,500 births have the rare disease . What percent of children are born with the rare disease? | The normal capacity of the stadium is 5000. The big game has 6000 fans present. Express the fraction as a percent. |

1. Convert decimals to fractions (or mixed numbers) and to percents.

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|  | | One or two places to the right of the decimal with no reducing required | One or two places to the right of the decimal with reducing required | Three or more places to the right of the decimal | Decimal less than .01  (Percent less than 1%) | Decimal greater than 1  (Percent greater than 100%) |
|  |  |  |  |  |
| Convert decimals to fractions or mixed numbers |  | The piece of wood is to be cut to .7 inches. What is this as a fraction? | The food label says that .14 of the calories are from protein. What fraction of the calories are from protein? | Pam’s batting average is .365. Express this as a proper fraction or mixed number in lowest terms. | Last year only .0005 of the people were in a town hit by a tornado. What fraction of people were in a town hit by a tornado? | On Tuesday, Kevin ate 1.15 of his normal daily allowance of calories. Express this as a proper fraction or mixed number in lowest terms. |
| Convert decimals to percents |  | The Bears won .78 of their games. What is their winning percentage? | NA | Kylie scores a goal on .095 of her shots. What is her shooting percentage? | At the airport, .002 of the passengers requested a wheelchair. What percent requested a wheelchair? | The Mark Twain candy sales made 1.45 of their goal. What percent of their goal did they achieve? |

1. Convert percents to decimals and to fractions (or mixed numbers).

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|  | | Whole number percent with no reducing required | Whole number percent with reducing required | Percent with a decimal part | Percent less than 1% | Percent greater than 100% |
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| Convert percents to decimals | 45% = .45 | 57% of the student body was in favor of the dress code. Express this as a decimal. | NA | The price increased by 20.4%. What is the increase as a decimal? | The jewelry with gold leaf accents was 0.02% gold. What is this as a decimal? | With extra credit, Steph scored 105% on the test. Express this as a decimal. |
| Convert percents to fractions or mixed numbers |  | Bill’s free throw percentage was 81%. Express this as a proper fraction or mixed number in lowest terms. | 84% of Pam’s money is in her savings account. Express this as a proper fraction or mixed number in lowest terms. | 12.5% of the cars are made by Chrysler. Express this as a proper fraction or mixed number in lowest terms. | After using the hand sanitizer, 0.011% of the germs remain. Express this as a proper fraction or mixed number in lowest terms. | Kevin lifted 110% of his previous best in the bench press. Express this percent as a proper fraction or mixed number in lowest terms. |