**Unit:** Fractions, Decimals & Percents

**Learning Target:** I can convert between fractions, decimals, and percents.

**Learning Objective: Period 1:** I can convert a decimal to a percent, and a percent to a decimal.

**Period 2:** I can solve real word problems involving fractions, decimals, and percents.

**Introduction (Period 1):**

* Students will complete the do now: *Convert 4/5 into a decimal; Convert 0 .6 into a fraction.*
* Teacher reviews answers.
* Teacher will model converting 0.6 into a percent, and then model converting that percent back into a decimal.
* Students will be given the Power Triangle picture as their notes sheet.
* Teacher will then show students the Power Triangle way to remember how to convert fractions to decimals and then percents.
* Students will be given 3 minutes to convert two decimals to their appropriate percentages and two percentages to convert to their appropriate decimals via Promethean.
* Students will be called on to come up to the Promethean and show their work.
* Teacher reviews answers.
* Depending on student progress, there will be one more decimal to convert into a percentage and one more percentage to convert into a decimal.

**Student Activity:**

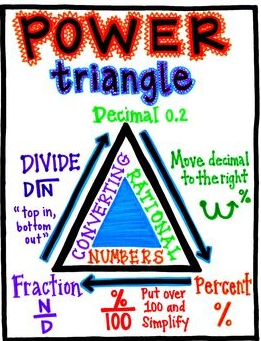
* Students will complete a skill based sheet on converting fractions, decimals, and percents.
* After 8 minutes, teacher will go over converting 0.7 into a percent and 5% into a decimal to check for understanding, because students may make errors with the place values.
* Students will continue to finish their worksheets while the teacher monitors student progress.

***Common Misconceptions:***

* *Place value errors (8% is 0 .8 instead of .08)*

**Conclusion:**

* Worksheets will be collected and graded.
* Students who finish early will create a poster of the power triangle with examples.



**Introduction (Period 2):**

* Students will complete the do now: *Convert 0 .4 into a percent; Convert 3% into a decimal.*
* Answers will be reviewed.

**Student Activity:**

* Students will complete a worksheet with word problems involving fractions, decimals, and percents.
* Students will guide the teacher to solving question number 1.
* After 15 minutes, teacher will go over numbers 5 and 6 to check for understanding, because these are the only two multiple choice questions so they may get confused.
* Students will continue to finish their worksheets while the teacher monitors student progress.

***Common Misconceptions:***

* *Place value errors (8% is .8 instead of .08)*
* *Division set up incorrectly for converting a fraction to a decimal.*

**Conclusion:**

* Answers will be reviewed.

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Directions:** Fill in what is missing from the chart.

|  |  |  |
| --- | --- | --- |
| **Percent** | **Decimal** | **Fraction** |
|  |  | 12/100 |
|  | 0.63 |  |
| 49% |  |  |
|  |  | 9/10 |
|  | 0.7 |  |
| 5% |  |  |

|  |  |  |
| --- | --- | --- |
| **Percent** | **Decimal** | **Fraction** |
|  |  | 37/50 |
|  | 0.03 |  |
| 50% |  |  |
|  |  | 2/5 |
|  | 0.1 |  |
| 100% |  |  |

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Directions:** **Solve the following problems. SHOW ALL YOUR WORK!**

1. Christian earned a 4/5 on a quiz and Janleo earned a 75%.  Who performed better?  Justify your answer. **SHOW YOUR WORK!**

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_performed better because

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. There are 3 stores with sales on apples. All 3 stores are offering the apples for $1.50. One store is offering 1/2 lbs. of apples. The next store is offering 7/10 lbs. of apples for $1.50. The final store is offering 0.75 lbs. of apples. Order the weights of the apples from least to greatest. **SHOW YOUR WORK!**

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

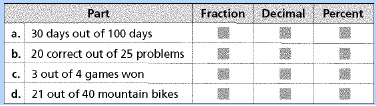
1. Keidria got a 0.8 on her quiz. She went to extra help 3 times. What is her quiz score as a percentage? **SHOW YOUR WORK!**

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Jerry has a bag of candy that weighs 3/4 lbs. What is the weight of his bag of candy as a decimal? **SHOW YOUR WORK!**

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Use the chart below to answer questions 5 and 6.



\_\_\_\_\_\_\_\_ 5. Below are 4 student responses to complete Row A which states, “30 days out of 100 days”. Which student completed Row A correctly?

1. Student A: 1/3, 0.3, 30%
2. Student B: 30/100, 0.33, 31%
3. Student C: 3/10, 0.3, 3%
4. Student D: 3/10, 0.3, 30%

\_\_\_\_\_\_\_\_\_ 6. Below are 4 student responses to complete Row D, which states, “21 out of 40 mountain bikes”. Which student completed Row D correctly?

1. Student A: 4/5, 0.8, 80%
2. Student B: 3/4, 0.75, 75%
3. Student C: 21/40, 0.52, 52.5%
4. Student D: 21/40, 0.525, 52.5%

7. Below are the test scores of one 6th grade student. On the first test the student earned an 85%. On the second test the student earned a 9/10, and the final test score was 0.87.

Order the test scores from the lowest grade to the highest grade.

**Show your work:**

Answer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How do you know? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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8. Ms. Goodheart recorded test scores as fractions and percents. The test scores are: 1/2, 75%, 4/5 and 90%. Convert each test score into a decimal. **SHOW YOUR WORK!**

Answer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_