**Unit:** Fractions, Decimals & Percents

**Learning Target:** I can find the percent of a whole number.

**Learning Objective:** I can find the percent of a whole number.

**Period 1: Mini Lesson: Parallel Teaching**

* Teacher will represent the process of finding the percent of a whole number using a proportion for one example via Promethean, to introduce the learning target, while having students copy it down into their notebooks.
* Class notes will then be handed out.
* Teacher will review notes, only modeling the skill based completed first example from the notes sheet on the promethean.
  + How do I set up my proportion accurately?
  + How do I solve a proportion?
* Students will have 4-6 minutes to complete questions 1 and 2 on the back of the notes sheet. After 6 minutes, volunteers will be called on to share answers.
* Teacher will review creating a proportion to find the percent of a quantity based on student performance.
* Students must remember that percentages are out of 100 and so anything with a percent symbol goes over 100. The total amount must go across from 100 in the proportion.

**Common Misconceptions:**

* *Proportion set up incorrectly*
* *Proportion solved incorrectly*

**Student Activity:**

* Students will have 15-18 minutes to work on the basketball statistics sheet.
* After 8 minutes, teacher will stop to review the answers to two players on the front side of the paper.
* Once the questions have been reviewed, students will continue to work on the problems.
* Any table that finishes early will select one problem to display on a poster, showing all work and the correct answer.
* **Students will be using their notes sheet as a guide to help them with the activity. An index card with the proportional setup will be given to students who are struggling.**

**Conclusion:**

* NBA practice sheet will be collected and graded.

**Period 2: Mini Lesson: Parallel Teaching**

* Students will complete 2 percent skill problems as a Do Now (8 minutes).
* Answers will be reviewed.
* Students will be asked to look at the notes sheet again while the teacher models the second completed word problem example via promethean.
  + How do I set up my proportion accurately?
  + How do I solve a proportion?
* Students will have 6-8 minutes to complete questions 3 through 5 on the back of the notes sheet. After 8 minutes, volunteers will be called on to share answers.
* Teacher will review a word problem and creating a proportion to find the percent of a quantity based on student performance.

**Common Misconceptions:**

* *Proportion set up incorrectly*
* *Proportion solved incorrectly*

**Student Activity:**

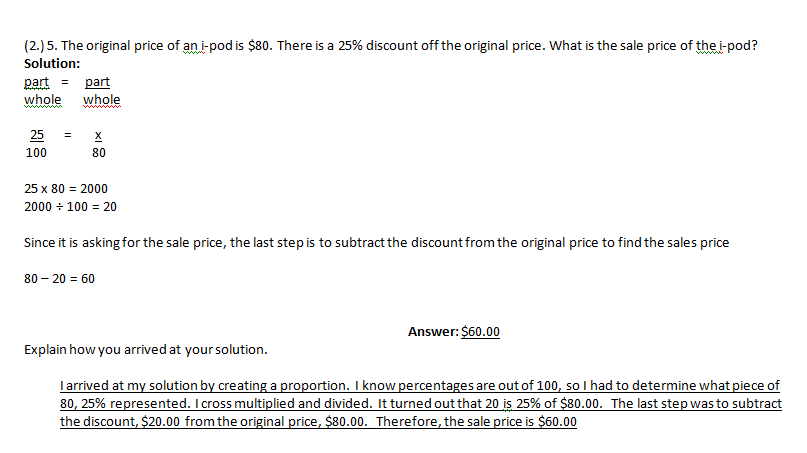
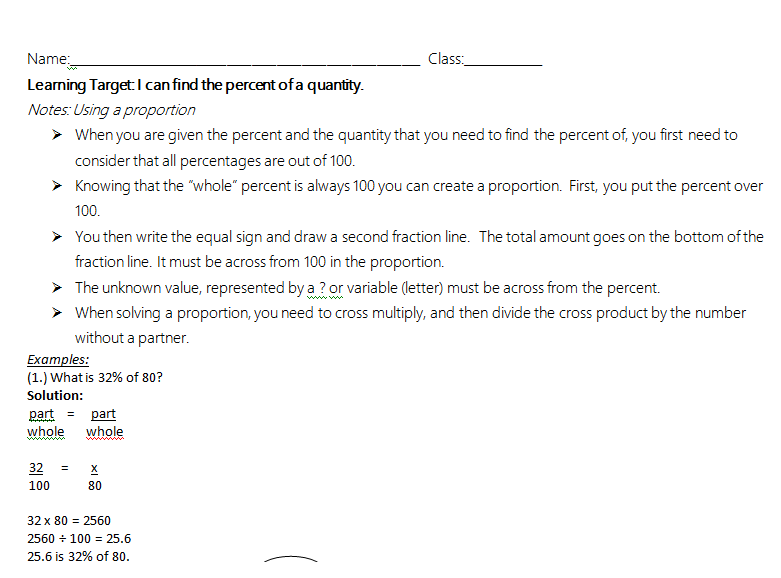
* Students will complete the independent practice independently.
* After 8 minutes, teacher will stop to review questions 1 and 2.
* Once the questions have been reviewed, students will continue to work on the problems.
* **Students will be using their notes sheet as a guide to help them with the activity. An index card with the proportional setup will be given to students who are struggling.**

**Conclusion:**

* Teacher will review number 6 with the students.
* Student volunteers will be called to the promethean to review the rest of their answers.
* Students should check their own work.

**Homework:** (see attached)

|  |  |  |  |
| --- | --- | --- | --- |
| **607** | **607** | **608** | **608** |
| **Mrs. Maljevic** | **Ms. Goodheart** | **Mrs. Maljevic** | **Ms. Goodheart** |
| Modou  Omer  Aniya | Jerry  Janleo  Luis | Devonique  Devine  Jayden | Erica  Jerick  John |
| Jaquan  Darius  Justin | Natasha  Elijah  Karielis | Aaron  Delmary  Alejandra | Xavier  Keidria  Angela |
| Dev  Pelkin  Alejandro | Melissa  Lyvia  Armon | Shariya  Leah  Yamilex | Arianna  Kaitland  Jah- Seani |
| Ignacio  Lynette | Sandra  Santi  Uriel  Amran | Elijah  Christian  Devin | Serena  Justin  Kelvin  Mia |



**Directions:** Solve using a proportion:

1.What is 32% of 60?

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

2.What is 20% of 141?

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

3. The library surveyed 180 people about their favorite type of movie. If 40% of the people chose action, how many people chose action?

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

4.The original price of a pair of jeans is $32. The discount is 15% off the original price. What is the amount of the discount?

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

5. The original price of a bicycle is $120. There is a 30% discount off the original price. What is the sale price of the bicycle?

**Answer:**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class:\_\_\_\_\_\_\_\_\_\_\_\_\_

**Finding the Percent of a Number**

The table shows the number of free throws shot made by NBA players during the post season.

**Directions:** Find the total number of free throws each player successfully made.

|  |  |  |
| --- | --- | --- |
| **Percent of shots made** | **Proportion/Show your work** | **Number of shots Made** |
| S. Curry:  75% of 160 attempted shots |  |  |
| J. Butler:  60% of 145 attempted shots |  |  |
| K. Love:  80% of 125 attempted shots |  |  |
| R. Jackson 55% of 80 attempted shots |  |  |
| E. Gordon  85% of 140 attempted shots |  |  |

**Directions:** Answer the following questions based on this chart:

(1) Who made the highest percentage of free throws in the post season? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(2) Who made the highest number of free throws in the post season? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(3) Who made the lowest percentage of free throws in the game? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(4) Who made the fewest number of free throws in the post season? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(5) If K. Love had made 100% of his free throws, how many total free throws would he have made? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(6) If S. Curry had made 0% of his free throws, how many free throws would he have made? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(7) K. Caldwell-Pope attempted 110 shots. He missed 33% of his attempted shots. How many total free throws did he successfully make?

**Show your work:**

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

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

**Directions:** Solve the following word problems using a proportion. **Round to nearest whole number!**

1. Christian found a new t-shirt that cost $32.00. He has a 20% off coupon. What is the sale price of the t-shirt?

|  |  |  |
| --- | --- | --- |
| **Setup** | **Work** | **Answer** |
|  |  |  |

1. Jerick wants a new ipod that cost $130.00. He has a coupon for 25% off the original price. What is the sale price of the ipod?

|  |  |  |
| --- | --- | --- |
| **Setup** | **Work** | **Answer** |
|  |  |  |

1. Mr. Kouvatsos is going to order textbooks. 150 textbooks cost $225.00. He has a discount of 25% off the total cost. What is the sale price of the textbooks?

|  |  |  |
| --- | --- | --- |
| **Setup** | **Work** | **Answer** |
|  |  |  |

1. Mr. Warnock has $50.00 to purchase pencils with. He spent 70% of the money on pencils. How much money did the pencils cost?

|  |  |  |
| --- | --- | --- |
| **Setup** | **Work** | **Answer** |
|  |  |  |

1. Modou received notice that his monthly health care rate will increase 20% next year. If Modou currently pays $150 per month for health care, by what amount will his rate increase next year?

|  |  |  |
| --- | --- | --- |
| **Setup** | **Work** | **Answer** |
|  |  |  |

1. Stephani is a news anchor. She works 55 hours a week, but she is only on-air about 18% of those hours. Approximately how many hours is Sarah on-air each week?

|  |  |  |
| --- | --- | --- |
| **Setup** | **Work** | **Answer** |
|  |  |  |

1. A baseball pitcher won 80% of the games he pitched. If he pitched 35 ballgames, how many games did he win?

|  |  |  |
| --- | --- | --- |
| **Setup** | **Work** | **Answer** |
|  |  |  |

1. A student earned a grade of 80% on a math test that had 20 problems. How many problems on this test did the student answer correctly?

|  |  |  |
| --- | --- | --- |
| **Setup** | **Work** | **Answer** |
|  |  |  |

1. Natasha found a wrecked Trans-Am that she could fix. She bought the car for 65% of the original price of $7200. What did she pay for the car?

|  |  |  |
| --- | --- | --- |
| **Setup** | **Work** | **Answer** |
|  |  |  |

1. Dev earns $12,800 a year. About 15% is taken out for taxes. How much is taken out for taxes?

|  |  |  |
| --- | --- | --- |
| **Setup** | **Work** | **Answer** |
|  |  |  |

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_ Class:\_\_\_\_\_\_\_\_\_\_\_\_\_

**Percents** **HW**

1. Choose the best score on a quiz

A. 15 out of 25 C. 8 out of 14

B. 25 out of 45 D. 30 out of 40

2. Mrs. Brynes gave a test. The student that performed best in her class earned a 70%. There were 40 questions on the test. How many total questions did the students answer correctly?

**Show your work:**

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

3. Armon asked 55 students in his class if they had a smart phone. 34 said yes. Do more than 50% of the students have a smart phone? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ How do you know? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. Amran said that 14 out of 38 students in his class have a smart phone. Do more than 50% of the students have a smart phone? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ How do you know? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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4. What is 25% of 60?

**Show your work:**

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

5. What is 30% of 90?

**Show your work:**

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

6. What is 75% of 20?

**Show your work:**

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