Unit 1- Lesson 9- Percent Notes Name:

Lesson Summary

Percent means out of . Therefore, percents are fractions with a denominator of .

We can create models of percents. One example would be to shade a grid. Each square in a grid represents or

Robb’s Fruit Farm consists of acres, on which three different types of apples grow. On acres, the farm grows Empire apples. McIntosh apples grow on of the farm. The remainder of the farm grows Fuji apples. Shade in the grid below to represent the portion of the farm each apple type occupies. Use a different color for each type of apple. Create a key to identify which color represents each type of apple.

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 **Color Key Part-to-Whole Ratio**

 Empire \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

McIntosh \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Fuji \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The shaded portion of the grid below represents the portion of a granola bar remaining.

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| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |

What percent does each square of granola bar represent?

What percent of the granola bar remains?

What other ways can we represent this percent?

**Exercise 3**



* 1. What percent is being modeled in each picture? Write your answer as a decimal, fraction, and percent.

|  |  |  |
| --- | --- | --- |
| **Picture a** | **Picture b** | **Picture c** |
|  |  |  |

* 1. What ratio is being modeled in each picture?
	2. How are the ratios and percentages related?

Exercise 4

Complete the table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Percentage** | **Decimal** | **Fraction** | **Ratio** | **Model** |
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Exercise 5

Mr. Brown shares with the class that of the students got an A on the English vocabulary quiz. If Mr. Brown has students, create a model to show how many of the students passed.

What fraction of the students passed the class?

How could we represent this amount using a decimal?

How are the decimal, the fraction, and the percent all related?

Exercise 6

Marty owns a lawn mowing service. He has lawns to mow this week and three people to mow them. Use the grid to model what percentage of the work each employee will complete this weekend.



|  |  |  |  |
| --- | --- | --- | --- |
| **Worker** | **Percentage** | **Fraction** | **Decimal** |
| Sheila |  |  |  |
| Marquis |  |  |  |
| Luther |  |  |  |

Color over the name with the same color you used in the diagram.

Unit 1- Lesson 9- Percent Name:

Classwork/Partner Practice

1. Marissa just bought 100 acres of land. She wants to grow apples, peaches, and cherries on her land. Color the model to show how many acres she will use for each type of tree that she will grow.



|  |  |  |  |
| --- | --- | --- | --- |
| **Fruit** | **Percentage** | **Fraction** | **Decimal** |
| Apple |  |  |  |
| Peach |  |  |  |
| Cherry |  |  |  |

1. After renovations on Kim’s bedroom, only 30 percent of one wall is left without any décor. Shade the wall to represent the space that is left to decorate.

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* 1. What does each square represent?
	2. What percent has been decorated?

Unit 1- Lesson 9- Percent Name:

Exit Ticket/ HW

One hundred offices need to be painted. The workers choose between yellow, blue, or beige paint. They decide that of the offices will be painted yellow; will be painted blue, and the remaining offices will be painted beige. Create a model that shows the percent of offices that will be painted by each color. Write the amounts as decimals and fractions.

|  |  |  |  |
| --- | --- | --- | --- |
| Color | % | Fraction | Decimal |
| Yellow |  |  |  |
| Blue |  |  |  |
| Beige |  |  |  |

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| --- | --- | --- | --- |
| Color | % | Fraction | Decimal |
| Yellow |  |  |  |
| Blue |  |  |  |
| Beige |  |  |  |