Unit

Unit 14: Understanding Percent

Local Objective

At the end of this unit, students will be able to:

- interpret percents as parts of a hundred
- find equivalent forms of fractions, decimals, and percents
- interpret percents greater than 100 and less than 1 as part of a hundred and w\express them in equivalent decimal and fraction forms
- use compatible numbers to estimate percents of numbers and to determine what percent of one number is of another
- find a percent of a number and determine what percent one number is of another
- apply percents in situations involving tips, taxes, and discounts
- check to see if their answers are reasonable

Objective used to evaluate students

Yes

Assessment Activity

Students will be assessed on:

- interpret percents as parts of a hundred 14-1 practice and quick check
- find equivalent forms of fractions, decimals, and percents 14-2 practice and quick check
- interpret percents greater than 100 and less than 1 as part of a hundred and w\express them in equivalent decimal and fraction forms 14-3 practice and quick check
- use compatible numbers to estimate percents of numbers and to determine what percent of one number is of another 14-4 practice and quick check
- find a percent of a number and determine what percent one number is of another 14-5 practice and quick check
- apply percents in situations involving tips, taxes, and discounts 14-6 practice and quick check
- check to see if their answers are reasonable 14-7 practice and quick check

- Topic 14 Test: Understanding Percent

1. interpret percents as parts of a hundred (questions 6-7)
2. find equivalent forms of fractions, decimals, and percents (questions 1-5)
3. express percents as fractions and decimals (questions 12-216)
4. estimate percents of numbers (questions 27-30)
5. find a percent of a number and what percent one number is of another (questions 17-20, 23-26)
6. solve problems involving tips, taxes, discounts, and simple interest (questions 8-11, 31)
7. determine if an answer is reasonable (questions 21-22)

Level of Expectation

80%

List of concepts and Evaluation Types

Concept	Evaluation Type
reasonableness	CR
tips, taxes, discount, and simple interest	CR
finding the percent of a number	CR
estimating percent	CR
percents greater than 100 and less than 1	CR
fractions, decimals, and percents	CR
understanding percent	CR

Learning Activity

Students will:
During whole group instructions, take notes and work guided practice problems on individual white boards and on class white board on how to:

- interpret percents as parts of a hundred
- find equivalent forms of fractions, decimals, and percents
- interpret percents greater than 100 and less than 1 as part of a hundred and w\express them in equivalent decimal and fraction forms
- use compatible numbers to estimate percents of numbers and to determine what percent of one number is of another
- find a percent of a number and determine what percent one number is of another
- apply percents in situations involving tips, taxes, and discounts
- check to see if their answers are reasonable

During independent work time students will complete:

1. interpret percents as parts of a hundred (questions 6-7)
2. find equivalent forms of fractions, decimals, and percents (questions 1-5)
3. express percents as fractions and decimals (questions 12-216)
4. estimate percents of numbers (questions 27-30)
5. find a percent of a number and what percent one number is of another (questions 17-20, 23-26)
6. solve problems involving tips, taxes, discounts, and simple interest (questions 8-11, 31)
7. determine if an answer is reasonable (questions 21-22)

Instructional Method

Teacher will:
During whole group instruction:
Use prepared notes to discuss, model examples, and provide guided practice problems, and correct as necessary on:

- interpret percents as parts of a hundred
- find equivalent forms of fractions, decimals, and percents
- interpret percents greater than 100 and less than 1 as part of a hundred and w\express them in equivalent decimal and fraction forms
- use compatible numbers to estimate percents of numbers and to determine what percent of one number is of another
- find a percent of a number and determine what percent one number is of another
- apply percents in situations involving tips, taxes, and discounts
- check to see if their answers are reasonable

While students are working on independent practice problems, teacher will observe and assist those having difficulties.

Content Standards

MA 1

Process Standards

1.10, 3.1, 3.4

Resources

Envision Math
SMARTboard
Individual white boards
Envision Workbooks
pearsonsuccessnet

GLEs v1.0

GLE Code	Discipline	Strand	Big Idea	Concept	Grade Level/Course	GLE
MA/1/1/A/06/a	Math	Number and Operations	Understand numbers, ways of representing numbers, relationships among numbers and number systems	Read, write and compare numbers	Grade 6	compare and order integers, positive rationals and percents, including finding their approximate location on a number line
MA/1/1/B/06/a	Math	Number and Operations	Understand numbers, ways of representing numbers, relationships among numbers and number systems	Represent and use rational numbers	Grade 6	recognize and generate equivalent forms of fractions, decimals and percents
MA/1/1/C/06/a	Math	Number and Operations	Understand numbers, ways of representing numbers, relationships among numbers and number systems	Compare and decompose numbers	Grade 6	recognize equivalent representations for the same number and generate them by decomposing and composing numbers, including expanded notation
MA/1/1/D/06/a	Math	Number and Operations	Understand numbers, ways of representing numbers, relationships among numbers and number systems	Classify and describe numeric relationships	Grade 6	use factors and multiples to describe relationships between and among numbers, including whole number common factors and multiples
MA/1/2/B/06/a	Math	Number and Operations	Understand meanings of operations and how they relate to one another	Describe effects of operations	Grade 6	describe the effects of addition and subtraction on fractions and decimals
MA/2/3/A/06/a	Math	Algebraic Relationships	Use mathematical models to represent and understand quantitative relationships	Use mathematical models	Grade 6	model and solve problems, using multiple representations such as graphs, tables, expressions and equations
MA/2/4/A/06/a	Math	Algebraic Relationships	Analyze change in various contexts	Analyze change	Grade 6	compare situations with constant or varying rates of change
MA/5/2/B/06/a	Math	Data and Probability	Select and use appropriate statistical methods to analyze data	Compare data representations	Grade 6	compare different representations of the same data and evaluate how well each representation shows important aspects of the data

GLEs v2.0 and CLEs

GLE Code	Discipline	Strand	Big Idea	Concept	Grade Level/Course	GLE
MA/A/1/C/6/a.	Mathematics	Algebraic Relationships	Understand patterns, relations and functions	Classify objects and representations	6th Grade	compare various forms of representations to identify patterns
MA/A/4/A/6/a.	Mathematics	Algebraic Relationships	Analyze change in various contexts	Analyze change	6th Grade	construct and analyze representations to compare situations with constant or varying rates of change
MA/N/1/B/6/a.	Mathematics	Numbers and Operations	Understand numbers, ways of representing numbers, relationships among numbers and number systems	Represent and use rational numbers	6th Grade	recognize and generate equivalent forms of fractions, decimals and benchmark percents
MA/N/1/C/6/a.	Mathematics	Numbers and Operations	Understand numbers, ways of representing numbers, relationships among numbers and number systems	Compose and decompose numbers	6th Grade	recognize equivalent representations for the same number and generate them by decomposing and composing numbers