## Competency: Basic Math Concepts

#### Tasks

- 1. Develop fluency in addition, subtraction, multiplication, and division of basic operations with and without calculators.
- Solve one- and two-step problems involving whole numbers, fractions, and decimals using addition, subtraction, multiplication, and division.
- 3. Solve practical computation problems for business such as calculating wages after taxes, developing a budget, and balancing a checkbook.
- 4. Analyze problem statements for missing/irrelevant data; estimate/exact values, and inconsistent parameters.
- 5. Identify business math terms.
- 6. Prove that results of computations using whole numbers, fractions, decimals, percents, and proportions are correct.
- 7. Recognize patterns and relationships among numbers.
- 8. Estimate the results of rational number computations and judge the reasonableness of the results.
- 9. Identify and use relationships between operations, such as division as the inverse of multiplication to solve problems.
- 10. Apply relational (equal, greater than, less than, etc.) and logical operations in a logical expression.
- 11. Select appropriate methods and tools for computing with whole numbers from mental computation, estimation, calculators, and paper and pencil.
- 12. Convert within and between measurement systems (metric and customary) and monetary systems using technology where appropriate.
- 13. Estimate conversions between the customary and metric systems.
- 14. Use the appropriate type of unit to calculate measurement of length, area, weight, volume, angles, and perimeter.
- 15. Construct or draw figures with given perimeters and areas.
- 16. Interpret scale drawings and models using maps and blueprints.
- 17. Use touch method on calculator to solve math problems that relate to business and industry.

## **Competency: Consumer Credit**

#### Tasks

- 1. Define credit and credit terms.
- 2. Identify the costs and benefits of various types of credit.
- 3. Calculate sales tax.
- 4. Compute total purchase price with interest added.
- 5. Compute the costs involved in owning and buying an item such as an automobile.
- 6. Compute finance charges for single payment loans.
- 7. Compare installment and revolving credit costs.
- 8. Calculate installment loan costs such as amount financed, the installment price, finance charge, and installment payment.
- 9. Find the estimated annual percentage rate (APR) using a table.
- 10. Find the finance charge and new balance using the average daily balance method.

## FBLA: BUSINESS MATH

# Competency: Data Analysis and Probability **Tasks** 1. Using a data set, determine mean, median, and mode. 2. Determine the type of average that best represents the measure of central tendency. 3. Distinguish between a simple average and a weighted average and calculate each. 4. Identify and construct various types of graphs and charts. 5. Compile and arrange facts in an organized manner for a table, chart, or figure. 6. Explain or prepare written summary of findings expressed in tables, charts, graphs, and figures. 7. Make predictions and decisions based on data and communicate their reasoning. Competency: Decimals Tasks 1. Round decimals to the nearest tenth and nearest hundredth. 2. Add, subtract, multiply, and divide decimals. 3. Convert a decimal to a fraction. 4. Convert a fraction to a decimal. 5. Read and write decimals using the place-value structure of the base-ten number system. 6. Solve business problems with currency. **Competency: Discounts** Tasks

- 1. Identify the various types of discounts.
- 2. Calculate the percentage of a discount of an item.
- 3. Calculate a chain discount and net selling price.
- 4. Calculate trade discounts and net selling price.
- 5. Calculate cash discounts and net selling price.

## FBLA: BUSINESS MATH

## **Competency: Fractions**

#### Tasks

- 1. Add, subtract, divide, and multiply fractions and mixed numbers with like (common) and unlike denominators.
- 2. Work flexibly with fractions to solve application problems.
- 3. Convert fractions to decimals, decimals to fractions, and use properties of basic operations to simplify fractional arithmetic expressions.
- 4. Convert an improper fraction to a whole or mixed number.
- 5. Convert a whole or mixed number to an improper fraction.
- 6. Reduce a fraction to lowest terms and raise a fraction to higher terms.
- 7. Apply appropriate methods for computing with fractions from among mental computation, estimation, calculators, or computers and paper and pencil.

## **Competency: Percentages**

### Tasks

- 1. Define the terms base, rate, and percentage and identify them in word problems.
- 2. Solve for base, rate, or part in a percent problem.
- 3. Convert a whole number, fraction, or decimal to a percent.
- 4. Convert a percent to a whole number, fraction, or decimal.
- 5. Use the percentage formula to find the unknown value when two values are known.
- 6. Find the rate or the base in the increase or decrease of an item.
- 7. Calculate markup and markdown of original value of item.
- 8. Calculate simple interest.

#### FBLA: BUSINESS MATH

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