West Virginia Alternate Academic Achievement Standards

High School Mathematics II

Relationships between Quantities

Apply operations of rational numbers to solve problems.

1 Solve addition, subtraction, multiplication, and division real-world problems involving whole numbers and decimals (i.e., money) using visuals and/or a calculator. A.M.2HS.1

Linear Functions and Modeling

Interpret functions that arise in applications in terms of a context.

2 Given a linear function represented by a table, determine the rate of change and find missing value. For example: A.M.2HS.2

3 Given a real-world function, find the possible values of the domain (e.g., Could you work 10 days a week? How many days a week can you work?). A.M.2HS.3

Cluster: Analyze representation of functions.

4 Compare two functions represented in different tables (e.g., Store A's Discount Table and Store B's Discount Table) to answer questions. A.M.2HS.4

Cluster: Build a function that models a relationship between two quantities.

5 Given a real-world situation, complete a given table. For example: A.M.2HS.5

Cluster: Construct and compare linear models and solve problems.

6 Given two tables representing linear real-world function, determine which is increasing at a greater rate. A.M.2HS.6

Expressions and Equations

Cluster: Interpret the structure of expressions.

7 Given a real-world problem and a choice of two algebraic expressions involving arithmetic operations, identify the algebraic expression that models the situation. A.M.2HS.7

Cluster: Write expressions in equivalent forms to solve problems.

8 Solve an algebraic expression involving arithmetic operations to represent a real-world problem (e.g., Jan has $10. She buys a loaf of bread for $2 and a gallon of milk. She now has $5. What is the cost of the milk?) A.M.2HS.8

Cluster: Create equations that describe numbers or relationships.

9 Determine solutions to equations that model real-world problem situations with two unknowns (e.g., given a set of options, find solutions for x + y + $2 = $6.25). A.M.2HS.9

10 Solve multi-step word problems, represent these problems using formulas with a letter standing for the unknown quantity. Assess the reasonableness of answers. A.M.2HS.10

Cluster: Solve equations in one variable.

11 Given choices and use of a calculator, solve quadratic equations in one variable by inspection (e.g., for $x^2 = 49$). A.M.2HS.11

Applications of Probability

Cluster: Make predictions.

12 Make predictions involving real world causeand-effect situations. A.M.2HS.12

13 Recognize that two events A and B are independent. A.M.2HS.13

14 Use probabilities to make fair decisions in real world situations (e.g., drawing by lots or using a random number generator). A.M.2HS.14

Similarity, Parallel Lines, and Coordinates

Cluster: Understand similarity in terms of similarity transformations.

15 Given two figures, decide if they are similar. A.M.2HS.15

Cluster: Identify congruent angles.

16 Given parallel lines cut by a transversal, identify congruent angles. A.M.2HS.16

Cluster: Use coordinates to partition line segments.

17 From a list of several examples of points on a directed line segment between two given points, determine which one partitions the segment in a given ratio. Limit to halves and thirds. A.M.2HS.17

Measurement and Volume

Cluster: Use measurement and volume formulas to solve problems.

18 Measure quantities accurately (e.g., follow a recipe). A.M.2HS.18

19 Given a list of volume formulas for cylinders, pyramids, cones, and spheres identify the correct formula to solve real-world problems. A.M.2HS.19