West Virginia Alternate Academic Achievement Standards

High School Mathematics III

Inferences and Conclusions from Data

Cluster: Summarize, represent, and interpret data on a single count or measurement variable.

1 Test predictions involving real-world events (e.g., experimental probability). A.M.3HS.1

Cluster: Understand and evaluate random processes underlying statistical experiments.

2 Approximate the likelihood of an event based on its probability (e.g., given a weather forecast, determine if it is likely to rain) and make appropriate real-world choices. A.M.3HS.2

3 Revise original predictions if necessary when predicting real-world events. A.M.3HS.3

Cluster: Make inferences and justify conclusions from sample surveys, experiments, and observational studies.

4 Draw conclusions from a given representation of data in real world situations. A.M.3HS.4

5 Use data from a survey to make assumptions about a larger population (e.g., from a survey about favorite color given to a small number of students in a school, assume that the results hold for the school). A.M.3HS.5

6 Use data from a randomized experiment to make real world predictions. A.M.3HS.6

Cluster: Use probability to evaluate outcomes of decisions.

7 Use probabilities to make fair decisions A.M.3HS.7

8 Analyze decisions and outcomes based on probability concepts. A.M.3HS.8

Linear and Polynomial Relationships

Cluster: Interpret the structure of expressions.

9 Identify an algebraic expression involving arithmetic operations to represent a real-world problem. A.M.3HS.9

Cluster: Apply rational expressions.

10 In real world problem situations, combine mixed numbers (i.e., recipes). Instructional Note: Limit to halves. A.M.3HS.10

Cluster: Represent and solve equations graphically.

11 Interpret the meaning of the intersection of the two graphs. Instructional Note: Include linear and polynomial functions. A.M.3HS.11

Mathematical Modeling

Create equations that describe numbers or relationships.

12 Create linear equations and inequalities in one variable and use them to solve problems. A.M.3HS.12

13 Create linear equations in two variables to represent relationships between quantities and graph equations on coordinate axes with labels and scales. A.M.3HS.13

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

14 Given real-world measures, demonstrate an understanding of domains and list possible values of domains. A.M.3HS.14

Cluster: Analyze functions using different representations.

15 Compare and contrast two functions represented in different tables or graphs (e.g., Store A's Discount Table and Store B's Discount Table) to answer questions. A.M.3HS.15

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

16 Given a real-world situation, complete a given table to answer questions. For example: A.M.3HS.16

Cluster: Visualize relationships between two dimensional and three-dimensional objects.

17 Identify the shapes of two-dimensional crosssections of three-dimensional objects. A.M.3HS.17

Cluster: Apply geometric concepts in modeling situations.

18 Use properties of geometric shapes to describe real world objects. A.M.3HS.18

19a Sketch a scale model using graph paper as needed (e.g., the layout of their house). A.M.3HS.19A

19b Interpret a scale model (e.g., locate specific rooms on a diagram of the school). A.M.3HS.19B