Wisconsin Mathematics

Essential Elements: High School: Functions

Interpreting Functions F-IF

A Understand the concept of a function and use function notation. M.F.IF.A

1 Use the concept of function to solve problems. M.EE.F.IF.1

2 Use the concept of function to solve problems. M.EE.F.IF.2

3 Use the concept of function to solve problems. M.EE.F.IF.3

B Interpret functions that arise in applications in terms of context.(M) M.F.IF.B

4 Construct graphs that represent linear functions with different rates of change and interpret the graphs. For example, which rate is faster/slower or higher/lower. M.EE.F.IF.4

5 Construct graphs that represent linear functions with different rates of change and interpret the graphs. For example, which rate is faster/slower or higher/lower. M.EE.F.IF.5

6 Construct graphs that represent linear functions with different rates of change and interpret the graphs. For example, which rate is faster/slower or higher/lower. M.EE.F.IF.6

C Analyze functions using different representations. (M) M.F.IF.C

7 Not applicable. See M.EE.F.IF.1.

8 Not applicable.

9 Not applicable.

Building Functions F-BF

A Build a function that models a relationship between two quantities. (M) M.F.BF.A

1 Select a graph from the first quadrant of the coordinate plane that represents a situation involving constant rate of change. M.EE.F.BF.1

2 Determine an arithmetic sequence with whole numbers when provided a recursive rule. M.EE.F.BF.2

B Build new functions from existing functions. M.F.BF.B

3 Not applicable.

4 Not applicable.

5 Not applicable.

Linear, Quadratic, and Exponential Models F-LE

A Construct and compare linear, quadratic, and exponential models and solve problems. (M) M.F.LE.A

1 Model a simple linear function such as y=mx to show that these functions increase by equal amounts over equal intervals. M.EE.F.LE.1

2 Model a simple linear function such as y=mx to show that these functions increase by equal amounts over equal intervals. M.EE.F.LE.2

3 Model a simple linear function such as y=mx to show that these functions increase by equal amounts over equal intervals. M.EE.F.LE.3

4 Not applicable.

B Interpret expressions for functions in terms of the situation they model. M.F.LE.B

5 Not applicable. See M.EE.F.IF.1.

Trigonometric Functions F-TF

A Extend the domain of the trigonometric functions of the unit circle. M.F.TF.A

1 Not applicable.

2 Not applicable.

3 Not applicable.

4 Not applicable.

B Model periodic phenomena with trigonometric functions. (M) M.F.TF.B

5 Not applicable.

6 Not applicable.

7 Not applicable.

8 Not applicable.

9 Not applicable.