



Standards / Objectives	<i>Excel Math</i> Lesson Numbers	Exercise Numbers
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## Strand 1: Number and Operations

### Concept 1: Number Sense

PO 1. Express whole numbers 0 to 20 using and connecting multiple representations.	8, 10, 15, 16, 20, 25, 28, 40, 45, 50, 58, 60, 65, 71, 80, 89, 90, 95, 98, 100, 105, 108, 110, 115, 120, 124, 130, 135, 144	1, 2, 3, 4, 7, 14, 20, 22
PO 2. Count forward to 20 and backward from 10 with or without objects using different starting points.	8, 10, 15, 16, 17, 20, 21, 22, 25, 26, 28, 31, 32, 33, 36, 37, 40, 45, 50, 58, 60, 65, 67, 69, 71, 77, 80, 81, 90, 91, 95, 98, 100, 101, 105, 108, 110, 112, 115, 120, 122, 124, 125, 127, 130, 135, 144  Money 67, 77, 102, 107, 117, 132, 137, 154	1, 2, 3, 6, 7, 10, 11, 12, 14, 20, 22
PO 3. Identify numbers which are one more or less than a given number to 20.	47, 56, 71, 85, 93, 96	
PO 4. Compare and order whole numbers through 20.	30, 31, 36, 37, 44, 52, 55, 118, 122, 125, 152  Things 74, 87	5
PO 5. Recognize and compare the ordinal position of at least five objects.	27, 59, 74, 75  Odd / Even 148	10

### Concept 2: Numerical Operations

PO 1. Solve contextual problems by developing, applying, and recording strategies with sums and minuends to 10 using objects, pictures, and symbols.	42, 47, 54, 62, 64, 70, 81, 86, 93, 96, 97, 99, 102, 103, 106, 107, 113, 121, 132, 148, 151	
PO 2. Develop and use multiple strategies to determine <ul style="list-style-type: none"> <li>• sums to 10 and</li> <li>• differences with minuends to 10</li> </ul>	42, 47, 54, 62, 64, 70, 81, 86, 93, 96, 97, 99, 103, 106, 109, 113, 116, 121, 123, 131, 132, 133, 136, 137, 142, 143, 145, 146, 147, 148, 149, 150, 151	
PO 3. Create word problems based on sums to 10 and differences with minuends to 10.	42, 47, 54, 62, 64, 70, 81, 86, 93, 96, 97, 99, 103, 106, 113, 121, 131, 132, 147, 151	

### Concept 3: Estimation

PO 1. Identify quantities to 20 as more or less than 5 or as more or less than 10	1, 44, 47, 49, 56, 71	13
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**Strand 2: Data Analysis, Probability, and Discrete Mathematics**

**Concept 1: Data Analysis (Statistics)**

PO 1. Construct simple displays of data using objects or pictures.	34, 35, 54, 94, 104, 111, 114, 140, 153, 154, 155	18
PO 2. Ask and answer questions by counting, comparing quantities, and interpreting simple displays of data.	34, 35, 54, 94, 104, 111, 114, 140, 153, 154, 155	18

**Concept 2: Probability**

In Grade K, there are no performance objectives in this concept

**Concept 3: Systematic Listing and Counting.**

PO 1. Sort, classify, count, and represent up to 20 objects and justify the sorting rule.	5, 14, 17, 19, 21, 22, 23, 24, 26, 30, 31, 32, 33, 34, 36, 37, 44, 51, 52, 55, 66, 68, 76, 118 Directional 1, 3, 4, 6, 7, 9, 29, 128	21, 23
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**Concept 4: Vertex-Edge Graphs – Exercise 19**

In Grade K, there are no performance objectives in this concept

**Strand 3: Patterns, Algebra, and Functions**

**Concept 1: Patterns**

PO 1. Recognize, describe, extend, create, and record simple repeating patterns.	12, 13, 18, 38, 41, 72, 134	
PO 2. Recognize, describe, extend, and record simple growing patterns.	69, 91, 101, 112, 127	

**Concept 2: Functions and Relationships**

In Grade K, there are no performance objectives in this concept

**Concept 3: Algebraic Representations**

PO 1. Record equivalent forms of whole numbers to 10 by constructing models and using numbers.	31, 32, 33, 44, 49, 55, 58, 85, 122	
PO 2. Compare expressions using spoken words and the symbol =.	49, 85, 86, 97, 99, 103, 106, 113, 121, 126, 131, 143, 146, 147, 148, 149	

**Concept 4: Analysis of Change**

In Grade K, there are no performance objectives in this concept

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**Strand 4: Geometry and Measurement**

**Concept 1: Geometric Properties**

PO 1. Identify, analyze, and describe circles, triangles, and rectangles (including squares) in different orientations and environments.	17, 43, 48, 61, 92, 141	8, 9, 15, 16, 17
PO 2. Build, draw, compare, describe, and sort 2-dimensional figures (including irregular figures) using attributes.	17, 39, 43, 48, 92, 141	15, 16, 17

**Concept 2: Transformation of Shapes**

In Grade K, there are no performance objectives in this concept

**Concept 3: Coordinate Geometry**

In Grade K, there are no performance objectives in this concept

**CONCEPT 4: Measurement**

PO 1. Compare and order objects according to observable and measurable attributes.	5, 6, 11, 14, 19, 21, 22, 23, 24, 34, 51, 54, 57, 66, 68, 76, 84, 94, 114, 119, 126, 128, 129  Time, Days, Months 12, 53, 73, 78, 82, 83, 87, 88	5, 21, 23
PO 2. Use the attribute of length to describe and compare objects using non-standard units.	19, 114, 119	21

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## Strand 5: Structure and Logic

### Concept 1: Algorithms and Algorithmic Thinking

In Grade K, there are no performance objectives in this concept

### Concept 2: Logic, Reasoning, Arguments, and Mathematical Proof

PO 1. Identify the question(s) asked and any other questions that need to be answered in order to find a solution.	46, 63, 79, 102, 107, 132, 139, 140, 147, 151, 152, 153, 155	24
PO 2. Identify the given information that can be used to find a solution.	46, 63, 79, 102, 107, 132, 139, 140, 147, 151, 152, 153, 155	24
PO 3. Select from a variety of problem-solving strategies and use one or more strategies to arrive at a solution.	46, 63, 79, 102, 107, 132, 139, 140, 147, 151, 152, 153, 155	24
PO 4. Represent a problem situation using any combination of words, numbers, pictures, physical objects, or symbols.	46, 63, 79, 102, 107, 132, 139, 140, 147, 151, 152, 153, 155	24
PO 5. Explain and clarify mathematical thinking.	46, 63, 79, 102, 107, 132, 139, 140, 147, 151, 152, 153, 155	24
PO 6. Determine whether a solution is reasonable.	46, 63, 79, 102, 107, 132, 139, 140, 147, 151, 152, 153, 155	24