



### Recommended Math Videos

Test 1: Unit R Review (Arithmetic Review) No Calculator		
	Unit R- Arithmetic Review (no calculator)	Video Links to Unit R material
R1	Place value	<a href="#">Comparing place value</a> <a href="#">Place Value (1)</a> <a href="#">Place Value (2)</a> <a href="#">Place Value (3)</a>
R2	Comparing numbers	<a href="#">Less than and greater than &lt;, &gt;</a> <a href="#">Comparing decimals</a> <a href="#">Comparing decimals, smallest to greatest</a>
R3	Rounding numbers	<a href="#">Rounding whole numbers (1)</a> <a href="#">Rounding whole numbers (2)</a> <a href="#">Rounding whole numbers (3)</a>
R4	Adding and subtracting whole numbers and decimals	<a href="#">Why carrying works in addition</a> <a href="#">Add 3-digit numbers with carrying</a> <a href="#">Addition with carrying practice</a> <a href="#">Borrowing/regrouping to subtract (1)</a> <a href="#">Borrowing to subtract (2)</a> <a href="#">Borrowing to subtract (3)</a> <a href="#">Borrowing to subtract (4)</a> <a href="#">Borrowing to subtract (5)</a> <a href="#">Decimals on a number line</a> <a href="#">Rounding decimals (1)</a> <a href="#">Rounding decimals (2)</a> <a href="#">Comparing decimals</a> <a href="#">Adding decimals</a>
R5	Multiplying whole numbers and decimals	<a href="#">Multiplication explained (1)</a> <a href="#">Multiplication explained (2)</a> <a href="#">Times tables chart patterns</a> <a href="#">Multiplication facts x 1, 2, 3, 4, 5, 6, 7, 8, 9</a> <a href="#">Multiplication facts x 10, 11, 12</a> <a href="#">How to multiply</a> <a href="#">Ways to show multiplication</a> <a href="#">Multiplying with multiples of 10</a> <a href="#">Multiplying 2-digit numbers (1)</a> <a href="#">Multiplying 2-digit numbers (2)</a> <a href="#">Multiplying larger numbers</a> <a href="#">Multiplication practice questions</a> <a href="#">Multiplication estimation</a> <a href="#">Multiplying decimals: how to</a> <a href="#">Multiplying decimals example</a> <a href="#">Multiplying decimals by power of 10</a> <a href="#">Multiply decimals example question</a>
R6	Powers – repeated multiplication (Exponential notation)	<a href="#">Exponents explained</a> <a href="#">Difference between powers (exponents) and multiplication</a> <a href="#">How to use exponent key on calculator</a>

R7	Dividing whole numbers and decimals	<a href="#">Division explained (1)</a> <a href="#">Division explained (2)</a> <a href="#">Long division</a> <a href="#">Dividing numbers: intro to remainders</a> <a href="#">2-digit divisors</a> <a href="#">Dividing to get a decimal answer</a> <a href="#">Dividing to get a decimal answer practice</a> <a href="#">Dividing multi digit decimal</a> <a href="#">Dividing a decimal with hundredths example</a>
R8	Order of operations (skip this section for math 037)	<a href="#">Order of operations explained</a> <a href="#">Examples of order of operations questions</a> <a href="#">Order of operations (more practice)</a>
R9	Operations with fractions	<a href="#">Fractions explained</a> <a href="#">More on understanding fractions</a> <a href="#">Numerator &amp; denominator explained</a> <a href="#">Converting mixed numbers into improper fractions (1)</a> <a href="#">Converting mixed numbers to improper fractions (2)</a> <a href="#">Converting from decimal to fraction notation</a> <a href="#">Converting improper fractions into mixed numbers</a> <a href="#">Comparing improper fractions and mixed numbers</a> <a href="#">Improper fractions and mixed numbers on number line</a>
R10	Equivalent fractions	<a href="#">Equivalent fractions (1)</a> <a href="#">Equivalent fractions (2)</a> <a href="#">Equivalent fractions (3)</a> <a href="#">Fractions in lowest terms</a> <a href="#">Practice simplifying fractions</a> <a href="#">Comparing fractions (1)</a> <a href="#">Comparing fractions (2)</a>
R11	Adding and subtracting fractions	<a href="#">Adding fractions with like denominators</a> <a href="#">Subtracting fractions with like denominators</a> <a href="#">Finding common denominators</a> <a href="#">Add fractions different denominators</a> <a href="#">Adding fractions with unlike denominators</a> <a href="#">Subtracting fractions with unlike denominators</a> <a href="#">Adding mixed numbers</a> <a href="#">Adding mixed numbers with unlike denominators (1)</a> <a href="#">Adding mixed numbers with unlike denominators (2)</a> <a href="#">Subtracting mixed numbers (1)</a> <a href="#">Subtracting mixed numbers (2)</a> <a href="#">Subtracting mixed numbers with unlike denominators</a> <a href="#">Adding fractions word problems</a> <a href="#">Subtracting mixed numbers word problems (1)</a> <a href="#">Subtracting mixed numbers word problems (2)</a>
R12	Multiplying fractions	<a href="#">Multiplying fractions (1)</a> <a href="#">Multiplying fractions (2)</a> <a href="#">How to use calculator for fraction questions</a> <a href="#">Multiplying fractions &amp; whole numbers</a> <a href="#">Multiplying mixed numbers</a> <a href="#">Multiplying fractions &amp; mixed numbers</a> <a href="#">Multiplying fractions word problem (1)</a> <a href="#">Multiplying fractions word problems (2)</a> <a href="#">Multiplying fractions word problem (3)</a>

R13	Dividing fractions	<a href="#">Division that results in a fraction</a> <a href="#">Dividing fractions</a> <a href="#">Fraction Division: multiply by reciprocal</a> <a href="#">Dividing mixed numbers</a> <a href="#">Dividing Fractions and writing with division symbol</a> <a href="#">Dividing fractions word problem (1)</a> <a href="#">Dividing fractions word problems (2)</a> <a href="#">Dividing fractions word problems (3)</a> <a href="#">Dividing fractions word problem (4)</a> <a href="#">Dividing fractions word problems (5)</a>
R14	Converting fractions and decimals	<a href="#">Converting from fractions to decimals</a> <a href="#">Converting decimals to fractions (1)</a> <a href="#">Converting decimals to fractions (2)</a> <a href="#">Converting decimals to fractions (3)</a> <a href="#">Converting decimals to fractions (4)</a> <a href="#">Converting decimals to fractions (5)</a> <a href="#">Converting decimals to fractions (6)</a> <a href="#">Converting fractions to decimals (1)</a> <a href="#">Converting fraction to a decimal (2)</a> <a href="#">Converting a fraction to a repeating decimal</a>
R15	Estimation	<a href="#">Estimating a multiplication question</a> <a href="#">Estimating a decimal</a> <a href="#">Rounding decimals on number line</a> <a href="#">Practice rounding decimals on the number line</a>

Unit R Practice and Review

**Test 1 Unit R (no calculator)**

Course Material (From Strianese & StrianeseText)

The second test covers chapters 1-4 (pp. 3-92)

Chapter 1 (pp. 3-29)	Using the Calculator	Video Links for Course Material
	1. Find sums, differences, products and quotients	<a href="#">Basic functions of calculator</a> <a href="#">Rounding decimals (1)</a>
	2. Solve problems by using chain calculations	<a href="#">Add and subtract chain calculations</a>
	3. Multiply or divide repeatedly using the constant function	<a href="#">How to multiply and divide by a constant</a>
	4. Find sums and differences by using a percent	<a href="#">Add sales tax</a> <a href="#">Calculate discounted price</a>
	5. Find products and quotients by using a percent	<a href="#">Multiply by a percentage</a>
	6. Solve problems using the memory function	<a href="#">How to use memory functions of Sharp calculator</a>
	7. Use the plus/minus key to convert a positive number to a negative number and vice versa	
Chapter 2 (pp33-43)	Numbers, Symbols of Operations and the Mill	
	1. Read and write numbers	<a href="#">Understanding place value</a> <a href="#">Where to place commas in large numbers</a> <a href="#">Writing checks</a> <a href="#">Writing out numbers in words 1</a> <a href="#">Write numbers as words 2</a>
	2. Identify Symbols for four basic operations (+, -, x, ÷)	

	3. Identify the mill and use it in solving problems	<a href="#">Round to the nearest cent</a> <a href="#">Round to nearest penny</a> <a href="#">How to round</a>
	4. Understand reasoning for rounding up in food service operation	<a href="#">Rounding up</a>
<b>Chapter 3</b> (pp.45-65)	<b>Addition, Subtraction, Multiplication and Division</b>	
	1. Find sums	<a href="#">Setting up vertical addition</a> <a href="#">Add 3-digit numbers with carrying</a> <a href="#">Check addition by subtracting</a>
	2. Find differences	<a href="#">Minuend, subtrahend and difference</a> <a href="#">Borrowing/regrouping to subtract (1)</a> <a href="#">Borrowing to subtract (2)</a> <a href="#">Borrowing to subtract (3)</a>
	3. Check subtraction by adding	<a href="#">Check subtraction answer by adding</a>
	4. Find products using the multiplication table	<a href="#">Multiplication table tips</a>
	5. Use a step-by-step procedure to find products	<a href="#">Long multiplication with carrying</a>
	6. Check the accuracy of the multiplication product	<a href="#">Tips to multiplication</a> <a href="#">Multiply whole number by 10, 100, 1000</a>
	7. Find quotients	<a href="#">Division is reverse of multiplication</a> <a href="#">Division is breaking something up into groups of a certain size</a> <a href="#">Division: how to</a> <a href="#">Division explained (1)</a> <a href="#">Division explained (2)</a> <a href="#">Long division</a>
	8. Find the remainder	<a href="#">Division with remainder</a>
	9. Check the accuracy of the division quotient	<a href="#">Check division answer with multiplication</a>
<b>Chapter 4</b> (pp.67-92)	<b>Fractions, Decimals, Ratios, and Percents</b>	<a href="#">Understanding fractions</a> <a href="#">Intro to using math in food industry</a>
	1. Simplify a fraction in lower terms without changing the value	<a href="#">Numerator and denominator explained</a> <a href="#">Converting improper fractions into mixed numbers</a> <a href="#">Converting mixed numbers into improper fractions (1)</a> <a href="#">Fractions in lowest terms</a> <a href="#">Practice simplifying fractions</a>
	2. Add, subtract, multiply and divide fractions	<a href="#">Adding fractions with like denominators</a> <a href="#">Add fractions different denominators</a> <a href="#">Find least common denominator</a> <a href="#">Multiplying fractions)</a> <a href="#">Fraction Division: multiply by reciprocal</a>
	3. Change fractions to decimals	<a href="#">Intro to decimals</a> <a href="#">Common fractions and decimal equivalents</a> <a href="#">Reading decimals</a>
	4. Write decimals and mix decimal fraction in words	<a href="#">Write decimals as words</a>
	5. Write numbers as decimals	<a href="#">Change mixed fractions to decimals</a>
	6. Find sums, differences, products and quotients in decimal problems	<a href="#">Adding decimals</a> <a href="#">Subtract decimals</a> <a href="#">Multiplying decimals: how to</a> <a href="#">Dividing to get a decimal answer</a>

	7. Solve problems by using given ratios	<a href="#">So many times as much</a> <a href="#">Intro to cross multiplication</a> <a href="#">Solving proportions using cross-multiplying</a> <a href="#">Solving proportions, Three methods</a> <a href="#">Using proportions to solve different questions</a>
	8. Write common fractions as percents	<a href="#">Convert fractions to percent using division</a> <a href="#">Percents greater than 100% and less than 1%</a> <a href="#">Some common fractions as percents</a>
	9. Write percents as common fractions, whole numbers or mixed numbers	<a href="#">What are percents</a> <a href="#">Solve percents using ratios and cross multiply</a> <a href="#">Change percents to fractions</a>
	10. Find the percents of meat cuts	<a href="#">Find percent of total by multiplying by decimal</a>

**Test 2 Summary and Review Chapters 1-4 (pp. 3-92)**

**Test 2**

**The Third test covers chapters 5 & 6 (pages 93- 130)**

<b>Weights and Measures and the Metric System</b>		<b>Video Links for Course Material</b>
Chapter 5	Weights and Measures	<a href="#">Intro to measuring for restaurant</a>
	1. Identify the equivalent measures commonly used in food service	<a href="#">Common abbreviations of weights and measurements in food prep</a>
	2. Find equivalent measures	<a href="#">Gallon, quarts, pints and cups</a> <a href="#">How to memorize volume measurements song</a> <a href="#">Measuring and Gallons, quarts, pints, cups</a>
	3. "As Purchased (AP) and Edible Portion (EP)	<a href="#">As purchased (AP) versus Edible Portion (EP)</a>
	4. Identify abbreviations of weights and measures	<a href="#">Abbreviations for culinary measures</a>
	5. Use a baker's balance scale	<a href="#">How to measure for baking</a> <a href="#">How many teaspoons (t) in a Tablespoon (T)</a>
	6. Demonstrate how to convert decimal weights into ounces	<a href="#">How to convert measurements using cross multiplication</a> <a href="#">Converting pounds to ounces 1</a> <a href="#">Converting pounds to ounces 2</a>
	7. Identify different types of portion scales (dial and digital)	<a href="#">The portion scale</a> <a href="#">The digital scale</a>
	8. Be able to explain difference between fluid ounces and avoirdupois ounces	<a href="#">How to pronounce "avoirdupois"</a> <a href="#">Meaning of avoirdupois (imperial)</a> <a href="#">Using a weight scale (scaling) in a kitchen</a> <a href="#">Fluid ounces versus avoirdupois ounces</a>
Chapter 6	Using the Metric System of Measure	<a href="#">Why the metric system by Bill Nye</a>
	1. Recite the basic units of measure of metric system	<a href="#">Intro to measurement and the metric system</a> <a href="#">Move decimal right or left for metric conversions</a> <a href="#">Converting between metric units</a>

	2. Compute length using meters	<a href="#">Comparing metric units of length</a> <a href="#">Metric length measurements</a> <a href="#">Convert metric lengths cm to m</a>
	3. Compute mass or weight using kilograms or grams	<a href="#">Converting kilograms to grams</a> <a href="#">How much is a gram or a kilogram practice questions</a>
	4. Compute volume using liters	<a href="#">Metric system using volume (litres etc)</a>
	5. Compute temperature using degrees Celsius	<a href="#">Celsius &amp; Farenheit conversion</a> <a href="#">Using formula to convert Celsius temperature to Farenheit</a> <a href="#">Celsius &amp; Farenheit conversion</a> <a href="#">Comparing Farenheit and Celsius temperatures</a> <a href="#">Formula convert Celcius temperature to Farenheit</a> <a href="#">Quick tips to convert Celcius to Farenheit</a>
	6. Recognize the increase in the use of metrics in the US food service industry	
	7. Change measurements from customary system to metric system	<a href="#">Converting metric to imperial (10 cm to inches)</a> <a href="#">Kilograms to pounds using cross multiplication</a>
	8. Find the cost of food and beverage products using metric system	

Test 3 Summary and Review Chapters 5 and 6 (pp. 93-130)

### Test 3

### Test Four covers chapter 7 (pp. 131-157)

#### Portion Control

#### Video Links for Course Material

Chapter 7	1. Identify methods for controlling portion size	<a href="#">Intro to portion control</a> <a href="#">Examples of portion controls</a>
	2. Identify portion size	<a href="#">Some basic serving sizes</a>
	3. Find cost per serving	<a href="#">How to cross multiply</a> <a href="#">Cross multiply</a> <a href="#">Convert pounds to ounces</a> <a href="#">Pounds to ounces</a> <a href="#">Cost per ounce</a> <a href="#">Price per ounce</a>
	4. Identify portion sizes using scoops and ladles	<a href="#">Intro to different scoop size</a> <a href="#">Scoop sizes</a> <a href="#">Scooping ice cream tips</a> <a href="#">Ladle size</a>
	5. Identify and find amounts of food to prepare	
	6. Define and identify the terms EP (Edible Portion) and AP (As Purchased)	<a href="#">Define Edible portion, As purchased and Yield</a> <a href="#">Calculate EP</a> <a href="#">EP, AP and Yield</a> <a href="#">AP, EP and Yield</a> <a href="#">Determine EP cost from AP cost</a>

	7. Find the approximate number of serving portions	<a href="#">Calculate number of servings</a> <a href="#">Number of servings</a>
	8. Find the amount of food to order	<a href="#">Calculate how much to purchase based upon amount served</a>
	9. Find the amount of cost per portion	<a href="#">Calculate food cost</a>
	10. Be able to conduct and determine yield test	<a href="#">Calculating yield</a>

#### Test 4 Summary and Review

### Test 4

### Test Five (covers chapter 8 pp. 159-180)

#### Converting Recipes, Yields, and Baking Formulas

#### Video Links for Course Material

Chapter 8	1. Find the work factor to convert recipes	<a href="#">Converting Recipe</a>
	2. Convert standard recipes from larger to smaller amounts, or from smaller to larger	<a href="#">Convert standard recipes using working factor (New divided by Old)</a> <a href="#">Using Yield to adjust recipe</a> <a href="#">Adjusting a recipe</a>
	3. Find approximate recipe yields	
	4. Use ratios and proportions to convert ingredients for recipes	<a href="#">How to change a recipe</a> <a href="#">Using ratios and proportions in cooking</a>
	5. Find percents for baker's percentage	<a href="#">Understanding baker's percentage</a>

#### Test 5 Summary and Review

#### Test 5 Practice Test

### Test 5

### Test Six (covers chapter 9 pp. 181-200)

#### Food, Recipe and Labour Costing

Chapter 9	1. Define Food costs	<a href="#">Food cost</a>
	2. Define labour costs	<a href="#">Intro to labour costs</a>
	3. Calculate the unit costs of individual items	<a href="#">Calculate unit cost by division</a>
	4. Define a standard recipe	<a href="#">What is a standard recipe?</a>
	5. Recognize the importance of AP versus EP in determining cost per oz	<a href="#">AP versus EP calculations</a>
	6. Calculate recipe cost charts to determine the extension costs of recipes	<a href="#">Calculating extension cost of ingredients</a>

	7. Calculate recipe cost charts to determine the yield costs of recipes	<a href="#">Calculate portion costs after considering waste</a>
	8. Identify and calculate the costs of labor	<a href="#">Labour cost percentage</a>
	9. Calculate gross and overtime wages	<a href="#">Calculate gross pay and overtime</a>
	10. Calculate payroll	<a href="#">Calculate payroll</a>

### Test 6 Summary and Review

## Test 6

## Test Seven (covers chapter 10 pp. 200-224)

### Determining Cost Percentages and Pricing the Menu

Chapter 10	1. Define food costs	<a href="#">Importance of knowing food cost</a>
	2. Define labour costs	<a href="#">Importance of knowing labour cost</a>
	3. Explain the purpose of food cost percentages	<a href="#">More on importance of knowing food cost</a>
	4. Explain the purpose of labour cost percentages	<a href="#">Importance of labour cost percentage</a>
	5. Calculate the food cost percentages	<a href="#">Intro to food cost percentage</a> <a href="#">Food cost percentage overview</a> <a href="#">Calculate food cost percentage</a> <a href="#">Food cost percentage</a>
	6. Calculate labour cost percentages	<a href="#">Calculate labour cost percentage</a>
	7. Calculate daily sales	<a href="#">Calculate average sales per customer</a>
	8. Calculate daily food cost	<a href="#">Food cost percentage</a>
	9. Calculate daily labour cost	
	10. Identify strategies to determine menu prices	<a href="#">Tips to determine menu price</a> <a href="#">Menu engineering basics</a> <a href="#">Intro to menu engineering</a>
	11. Find menu price using Markup strategy	<a href="#">Menu pricing</a>
	12. Find menu price using food cost percentage	<a href="#">Menu price setting based on food cost</a> <a href="#">How to calculate menu cost</a>
	13. Find food cost, food cost percentage, or sales price using the Chef's Magic Circle	

### Test 7 Summary and Review

## Test 7

## Test Eight (covers chapter 12 pp. 251-266)

### Purchasing and Receiving

### Video Links for Course Material

Chapter 12	1. Prepare requisitions	<a href="#">Stocking Inventory and handling</a>
	2. Prepare invoice forms and find extension prices	<a href="#">Restaurant Purchase and Order forms</a>



	3. Prepare purchase specifications and purchase orders	<a href="#">Purchase order process</a>
	4. Identify computer as means of communication	<a href="#">Intro to computer in restaurant</a> <a href="#">Intro to point of sale (POS) for a restaurant</a> <a href="#">Restaurant purchasing using computer software</a> <a href="#">Computer usage in all parts of restaurant</a>
Test 8 Summary and Review		
<b>Test 8</b>		
<b>Test Nine (covers chapter 13 pp. 267-287)</b>		
<b>Daily Production Reports and Beverage Costs</b>		
Chapter 13	1. Complete the cook's production report	<a href="#">Production report</a>
	2. Complete the baker's production report	<a href="#">Bakery production report</a>
	3. Complete the salad production report	
	4. Complete the counter production report	
	5. Calculate beverage percentages	<a href="#">Beverage cost percentage</a> <a href="#">Calculate beverage cost percentage</a>
	6. Identify the number of ounces in 750 ml of wine	<a href="#">Different types of alcohol</a> <a href="#">Ounces to ml for bartending</a>
	7. Identify number of oz in barrel or keg of beer	<a href="#">Number of 16 oz glasses in keg</a>
	8. Recognize methods in which theft may occur in beverage operation	<a href="#">Tips to minimize alcohol theft</a> <a href="#">Bar inventory control software</a>
	9. Calculate sales from a barrel or keg of beer using the cup method	
Test 9 Summary and Review		
<b>Test 9</b>		
	<b>MATH 037 Practice Final Exam</b>	
	<b>MATH 037 Final Exam</b>	
<b>Some Learning tips and strategies for math 037</b>		<a href="#">Tips for remembering what you read</a> <a href="#">Intro to math anxiety</a> <a href="#">Math anxiety strategies</a> <a href="#">Tips for math anxiety</a> <a href="#">Pro chefs share their top tips</a>