CAMOSUN COLLEGE

School of Access
Academic and Career Foundations Department
MATH 052 Intermediate Mathematics 1

VIDEO LINKS

	MATH 052 course content	Video Links
	Unit R- Arithmetic Review (no calculator)	
R1	Place value	Comparing place value Place Value (1) Place Value (2)Place Value (3)
R2	Comparing numbers	Less than and greater than <, > Comparing decimals Comparing decimals, smallest to greatest
R3	Rounding numbers	Rounding whole numbers (1) Rounding whole numbers (2) Rounding whole numbers (3)
R4	Adding and subtracting whole numbers and decimals	Why carrying works in addition Add 3-digit numbers with carrying Addition with carrying practice Borrowing/regrouping to subtract (1) Borrowing to subtract (2) Borrowing to subtract (3) Borrowing to subtract (4) Borrowing to subtract (5) Decimals on a number line Rounding decimals (1) Rounding decimals (2) Comparing decimals
R5	Multiplying whole numbers and decimals	Multiplication explained (1) Multiplication explained (2) Times tables chart patterns Multiplication facts x 1, 2, 3, 4, 5, 6, 7, 8, 9 Multiplication facts x 10, 11, 12 How to multiply Ways to show multiplication Multiplying with multiples of 10 Multiplying 2-digit numbers (1) Multiplying 2-digit numbers (2) Multiplying larger numbers Multiplication practice questions Multiplication estimation Multiplying decimals: how to Multiplying decimals example Multiplying decimals by power of 10 Multiply decimals example question
R6	Powers – repeated multiplication (Exponential notation)	Exponents explained Difference between powers (exponents) and multiplication How to use xSquared exponent key on calculator How to use the xCubed key on calculator

R7	Dividing whole numbers anddecimals	Division explained (1) Division explained (2) Long division Dividing numbers: intro to remainders2-digit divisors Dividing to get a decimal answer Dividing to get a decimal answer practice Dividing multi digit decimal Dividing a decimal with hundredths example
R8	Order of operations	Order of operations explained Examples of order of operations questions Order of operations (more practice)
R9	Operations with fractions	Fractions explained More on understanding fractions Numerator & denominator explained Converting mixed numbers into improper fractions (1) Converting mixed numbers to improper fractions (2) Converting from decimal to fraction notation Converting improper fractions into mixed numbers Comparing improper fractions and mixed numbers Improper fractions and mixed numbers on number line
R10	Equivalent fractions	Equivalent fractions (1) Equivalent fractions (2) Equivalent fractions (3) Fractions in lowest terms Practice simplifying fractions Comparing fractions (1) Comparing fractions (2)
R11	Adding and subtracting fractions	Adding fractions with like denominators Subtracting fractions with like denominators Finding common denominators Add fractions different denominators Adding fractions with unlike denominators Subtracting fractions with unlike denominators Adding mixed numbers Adding mixed numbers with unlike denominators (1) Adding mixed numbers with unlike denominators (2) Subtracting mixed numbers (1) Subtracting mixed numbers (2) Subtracting mixed numbers with unlike denominators Adding fractions word problems Subtracting mixed numbers word problems (1) Subtracting mixed numbers word problems (2)
R12	Multiplying fractions	Multiplying fractions (1) Multiplying fractions (2) How to use calculator for fraction questions Multiplying fractions & whole numbers Multiplying mixed numbers Multiplying fractions & mixed numbersMultiplying fractions word problem (1) Multiplying fractions word problems (2) Multiplying fractions word problem (3)

R13	Dividing fractions	Division that results in a fraction Dividing fractions Fraction Division: multiply by reciprocal Dividing mixed numbers Dividing Fractions and writing with division symbol Dividing fractions word problem (1) Dividing fractions word problems (2) Dividing fractions word problems (3) Dividing fractions word problem (4) Dividing fractions word problems (5)
R14	Converting fractions and decimals	Converting from fractions to decimals Converting from fractions to decimals Converting decimals to fractions (1) Converting decimals to fractions (2) Converting decimals to fractions (3) Converting decimals to fractions (4) Converting decimals to fractions (5) Converting decimals to fractions (6) Converting fractions to decimals (1) Converting fraction to a decimal (2) Converting fraction torepeating decimal
R15	Estimation	Estimating a multiplication question Estimating a decimal Rounding decimals on number line Practice rounding decimals on the number line
Practice Test		
Unit R final test (no calculator)		

Start of Course Material		
	Unit 1 – Percent Notation	Video Links
4.1	Ratio and proportion	Introduction to ratios Ratios as fractions in simplest form Simplifying ratios (1) Simplifying ratios (2) Equivalent ratios in higher terms Unit rate Unit prices Understanding proportions Finding an unknown in a proportion Intro to cross multiplication Solving proportions using cross-multiplying Solving proportions, Three methods Map scale
4.2	Percent notation	Meaning of percent (1) Meaning of percent (2) Meaning of percent (3) Percent as decimal Practice converting decimal to percent Converting fraction to percent (finding equivalent fractionout of 100) Converting fractions, decimals and percents Convert fractions to percent using division Percents greater than 100% and less than 1% Converting percents greater than 100% Some common fractions as percents 33 1/3% and 66 2/3% Percent greater than 100%
4.3	Percent and fraction notation	Practice converting percent to decimal Converting fraction into decimal, then percent
4.4	Solving percent problems using percent equations	Solving percent problems equation method
4.5	Solving percent problems using proportions	Using proportion method to solve percents (1) Using proportion method to solve percents (2) Percent of a total Finding percent of total Using proportion method for word problems
4.6	Applications of percent	Solve equations and word problems using percent (1) Solving equations and word problems using percent (2) Calculating sales tax using proportion method Calculating percent decrease or percent increase Calculating a percent increase using the equation method
4.7	Sales tax, commission, and discount	Calculating a percent off using equation method Calculating amount of discount and final price Calculating percent change using proportion method Calculating commission using equation method Calculating rate of discount using proportion method
4.8	Interest rates on credit cards andloans	Intro to exponent key on Sharp El531W calculator How to do compound interest questions Compound Interest: work through an example
Summary and review		
Unit 1 final test		

	Unit 2 – Data, Graphs, and Statistics	
5.1	Averages, medians, and modes	Mean, median, mode
5.2	Tables and pictographs	Reading bar graphs Reading pictographs
5.3	Bar graphs and line graphs	Reading line graphs How to read tables and graphs
5.4	Circle graphs	Reading circle graphs
Summary and review		
Unit 2 final test		
	Unit 3 – Measurement	
A*	Linear measures: American units and metric units (*Appendices)	American units distance Why the metric system Intro to measurement and the metric system Move decimal right or left for metric conversions Converting between metric units Converting metric to metric Converting kilograms to grams How much is a gram or a kilogram practice questions Comparing metric units of lengthMetric length measurements Converting metric to metric Convert metric lengths cm to m Converting metric to imperial (10 cm to inches) Convert inches to yards Converting feet and inch units within Imperial system
B*	Weight and mass; medical applications	American units weight/mass Converting kilos to grams Practice converting pounds to ounces Measuring mass and when to use g, milligram, kilogram
C*	Capacity; medical applications	American units volume/capacity (1) American units volume/capacity (2) Converting American gallons to cups Metric system using volume (litres etc)
D*	Time and temperature	Celsius & Farenheit conversion Using formula to convert Celsius temperature to Farenheit Celsius & Farenheit conversion Comparing Farenheit and Celsius temperatures Formula convert Celcius temperature to Farenheit Quick tips to convert Celcius to Farenheit
Summary and review		
Unit 3 final test		
	Unit 4 Geometry	
6.1	Basic Geometric Figures	Properties of quadrilaterals Quadrilateral overview Types of triangles and their properties Calculating interior angles of a polygon Lines, line segments and rays
6.2	Perimeter	Introduction to perimeter Introduction to perimeter Finding perimeter of a square and rectangle
6.3	Area	Introduction to area Picturing area Understanding area Interactive perimeter and area comparison Calculating area (1) Calculating area (2) Calculate area of trapezoid using formula Calculating area of composite figures

		Find the area of a room to be carpeted Area of triangle practice How to use the square root key on calculator
6.4	Circles	Circle parts Radius, diameter and circumference Area of a circle Word problem area of circle Area of irregular shapes
6.5	Volume and surface area	Introduction to volume Intro to length, Area, Volume characteristics Volume explained Volume as area x length (or height) Volume of rectangular prism Rectangular prism word problem Volume of triangular prism Volume word problem Volume of irregular shapes How to use the cube root key on calculator Similar triangle relationships /calculating missing sides Volume of rectangular prism Compare volumes of rectangular prism Volume word problem Length of side of a cube Calculating a side length when given the volume of a rectangular prism
6.8	Similar Triangles	Similar Triangle Relationships and Calculating Missing Side Lengths in Similar Triangles Similar Triangle practice
Summary and review		
Unit 4 final test		
	Unit 5 – Trigonometry	
5.1	The Right Triangle	Intro to triangles
5.2	Angles and Sides	Name the parts of a right triangle for trig questions
5.3	The Pythagorean Theorem	Intro to Pythagorean Theorem Pythagorean Theorem Example 1 Pythagorean Theorem Example 2 Pythagorean Theorem Example 3 How to use the square root key on calculator
5.4	The Tangent Ratio	Trig questions that use tangent ratio
5.5	Using the Tangent Ratio	Using inverse tan to find angle
5.6	The Sine and Cosine Ratios	How to use the calculator to solve Trig questions Using the Sine, Cosine and Tangent Ratios Use Trig to Solve side length and angles of right triangle Sine cos and tangent questions
5.7		Using SOH CAH TOA (1) Using SOHCAH TOA (2) Trigonometry Word Problem Practice Example 1 Trig word problems angle of elevation/depression 2
Practice test in booklet		
Unit 5 final test		
Math 052 Review		
Math 052 Final Exam		