

MATERIAL COVERED

The Math 10 Principles course is divided into three main sections:

Numbers

- Number sequences
- Real numbers
- Statistics and probability

Coordinate Geometry and Trigonometry

- Line segments
- Straight lines
- Trigonometry

Algebra

- Functions
- Polynomials
- Rational Expressions

TEXTBOOK

The course uses either of the following:

Mathematics 10 (Western Canadian Edition)

(ISBN 0-201-34619-2, Addison Wesley)

Mathpower 10 (Western Edition)

(ISBN 0-07-552596-8, McGraw-Hill Ryerson)

GRADING

This course works on a mastery system. You must pass the mastery tests in each unit to the 80% level before you can go on. In addition, there are cumulative tests from time to time. These are tests you can take only once, so studying before them is essential to do well. Your final mark for the course is based 60% on mastery tests and 40% on cumulative tests.

Students are reminded that this is a provincially examinable course. The mark you receive from your teacher only counts for 80% of your final mark for the course. The other 20% comes from the provincial exam you must write. Be sure to ask your teacher for a practice provincial exam, available from the Ministry of Education website, www.bced.gov.bc.ca, that you can write and mark before you write the real thing.

GOAL

The goal of this unit is to increase your skills with number sequences.

OBJECTIVES

While completing this unit you will investigate the following topics and practice working with

- Arithmetic growth
- Geometric growth
- Number sequences

WHAT TO DO IN THIS UNIT

- Follow the column for the textbook you are using. Read and follow the example problems at the beginning of each section, then do the practice problems on the pages in the table below. Be sure to tick off each section as you complete it.

<i>Mathpower 10</i>			<i>Mathematics 10</i>		
✓	Unit	Practice by doing these questions	✓	Unit	Practice by doing these questions
	2.1	p.57 #1-9, 14, 17		1.1	p.7 #1-3, 5-6, 8-12
	2.3	p.66 odds #1-47		1.2	p.13 odds
	2.4	p.70 #4, 8-10		1.3	p.20 #1-5, 7, 9-10, 12, 14, 16
	2.5	p.74 evens		1.4	p.27 #1-3, 5, 8-10, 12
	2.7	p.82 odds, but don't do 15, 21, 27		1.6	p.40 #1-6 and 8-9
				1.7	p.50 #1-6, p. 53 #1-2
				1.8	p.58 #1-6, 8-14

- When you are ready, ask your teacher for the Unit 1 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

GOAL

The goal of this unit is to increase your skills with real numbers.

OBJECTIVES

While completing this unit you will investigate the following topics and practice working with

- Radicals
- Exponents
- Rational expressions
- Irrational numbers

WHAT TO DO IN THIS UNIT

- Follow the column for the textbook you are using. Read and follow the example problems at the beginning of each section, then do the practice problems on the pages in the table below. Be sure to tick off each section as you complete it.

<i>Mathpower 10</i>			<i>Mathematics 10</i>		
✓	Unit	Practice by doing these questions	✓	Unit	Practice by doing these questions
	1.1	p.8 #3-19, 35, 39, 45, 54		2.1	p.72 #1-4 odds, 7-8, 11, 18, 19
	1.3	p.14 #1-27 odds, 32, 36, 42		2.2	p.80 odds in #1-4, 6-8, 10, 12
	1.4	p.19 all evens #2-30, 34, 54, 59		2.3	p.90 #1-3, 6-8
	1.5	p.23 every fifth question #5-65		2.5	p.104 #1, 3-5, 7-9
	1.7	p.33 #1-81 odds		2.7	p.119 odds in #1-3, 5, 7, 9-10, 14
	1.8	p.37 #1-45 odds		2.8	p.127 odds in #1-3, 6, 13
				2.9	p.132 odds in #2, 3, 15, 16
				2.10	p.138 odds in #1-5, 8-9, 13-15, 17

- When you are ready, ask your teacher for the Unit 2 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

GOAL

The goal of this unit is to increase your skills with statistics and probability.

OBJECTIVES

While completing this unit you will investigate the following topics and practice working with

- Surveys
- Sampling methods
- Samples to populations
- Probability
- Expectation

WHAT TO DO IN THIS UNIT

- Follow the column for the textbook you are using. Read and follow the example problems at the beginning of each section, then do the practice problems on the pages in the table below. Be sure to tick off each section as you complete it.
- **Please note: This unit requires understanding of new vocabulary which you *will* be tested on. Be prepared to define terms on the test!**

Mathpower 10			Mathematics 10		
✓	Unit	Practice by doing these questions	✓	Unit	Practice by doing these questions
	8.1	p.368 #1-15		9.1	p.533 #1-5, 8-12
	8.2	p.372 #1-13 odd		9.2	p.540 #1-6, 10, 13, 14
	8.3	p.382 #2, 6, 7-14		9.5	p.565 #1-12
	8.4	p.387 #1, 2, 5, 7, 13		9.6	p.575 #1-9, 11
				9.7	p.579 #1-3, 5, 7-9

- When you are ready, ask your teacher for the Unit 3 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.
- Go over your work from Units 1-3 in preparation for Cumulative Test #1. When you are ready to write it, ask your teacher. Remember, this test is one chance only, so do your best.

GOAL

The goal of this unit is to increase your skills with the coordinate geometry of line segments.

OBJECTIVES

While completing this unit you will investigate the following topics and practice working with

- Length
- Midpoint
- Slope

WHAT TO DO IN THIS UNIT

- Follow the column for the textbook you are using. Read and follow the example problems at the beginning of each section, then do the practice problems on the pages in the table below. Be sure to tick off each section as you complete it.

<i>Mathpower 10</i>			<i>Mathematics 10</i>		
✓	Unit	Practice by doing these questions	✓	Unit	Practice by doing these questions
	6.1	p.256 #1, 3, 5, 9, 11, 13, 15, 18-20		3.1	p.149 #1-4ace, 6, 7, 11, 14, 15, 19
	6.2	p.261 #1, 3, 7, 10, 11, 13, 16, 19		3.2	p.158 #1, 2 odds, 6, 7, 11, 15
	6.3	p.267 #1-6, 9, 11, 13, 19, 21, 24		3.3	p.166 #1, 2, 3a, 5, 6, 7ace, 8, 12-15

- When you are ready, ask your teacher for the Unit 4 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

GOAL

The goal of this unit is to increase your skills with the coordinate geometry of straight lines.

OBJECTIVES

While completing this unit you will investigate the following topics and practice working with

- Slope of parallel line segments
- Slope of perpendicular line segments
- Using equations to draw graphs
- Equations of lines

WHAT TO DO IN THIS UNIT

- Follow the column for the textbook you are using. Read and follow the example problems at the beginning of each section, then do the practice problems on the pages in the table below. Be sure to tick off each section as you complete it.

<i>Mathpower 10</i>			<i>Mathematics 10</i>		
✓	Unit	Practice by doing these questions	✓	Unit	Practice by doing these questions
	6.5	p.282 #5, 7, 9, 11, 21, 25, 32, 39-41		3.4	p.177 #1-15 odds
	6.6	p.288 #3-15 odds, 21, 23, 27-35		3.5	p.187 #1-4, 8, 11ace, 12ace, 19-21
	6.7	p.294 #1-7 odds, 17-21 odds, 28, 30, 34, 36, 41, 43, 45, 47, 49, 58		4.1	p202 #1-3, 5, 7-9
	6.8	p.298 #1, 3, 5, 9, 11, 13, 17, 19, 21, 23, 25, 27, 29-34, 35, 37, 38		4.2	p.210 #1, 3, 4ac, 7ac, 10, 11, 13, 15, 16
				4.3	p.217 #1-5ace, 7, 10, 11, 17
				4.4	p.226 #1-3, 5, 7ace, 9, 11, 16
				4.5	p.233 #1, 4, 6, 7, 8ace, 9ace, 10, 11

- When you are ready, ask your teacher for the Unit 5 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

GOAL

The goal of this unit is to increase your skills with trigonometry.

OBJECTIVES

While completing this unit you will investigate the following topics and practice working with

- Tangent ratios
- Sine ratios and cosine ratios
- Solving right triangles
- Sine and cosine of an obtuse triangle
- Sine law and cosine law

WHAT TO DO IN THIS UNIT

- Follow the column for the textbook you are using. Read and follow the example problems at the beginning of each section, then do the practice problems on the pages in the table below. Be sure to tick off each section as you complete it.

<i>Mathpower 10</i>			<i>Mathematics 10</i>		
✓	Unit	Practice by doing these questions	✓	Unit	Practice by doing these questions
	7.4	p.332 #1-15 odds		8.1	p.4547 #1-3, 5 ab, 7, 9, 12, 14, 18
	7.5	p.335 #1-6, 9, 11, 12, 14, 16		8.2	p.464 #1, 3, 4, 6, 9, 13-16, 18, 20
	7.7	p.347 #1-13 odds, 15, 16, 18, 19		8.3	p.474 #1-3, 4 odds, 6, 8-13
	7.8	p.352 #1-13 odds, 15-17, 20, 23		8.4	p.484 #1, 2, 4, 6, 7, 12, 13, 16
				8.7	p.509 #1, 3, 4, 8, 11, 12, 15, 16, 20
				8.8	p.517 #1, 3, 5, 11, 15, 18-26 evens

- When you are ready, ask your teacher for the Unit 6 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.
- Go over your work from Units 4-6 in preparation for Cumulative Test #2. When you are ready to write it, ask your teacher. Remember, this test is one chance only, so do your best.

GOAL

The goal of this unit is to increase your skills with functions.

OBJECTIVES

While completing this unit you will investigate the following topics and practice working with

- Interpreting graphs of functions
- Linear functions
- Function notation
- Relations

WHAT TO DO IN THIS UNIT

- Follow the column for the textbook you are using. Read and follow the example problems at the beginning of each section, then do the practice problems on the pages in the table below. Be sure to tick off each section as you complete it.

<i>Mathpower 10</i>			<i>Mathematics 10</i>		
✓	Unit	Practice by doing these questions	✓	Unit	Practice by doing these questions
	5.2	p.219 #1-17 odds, 21-31 odds		5.1	p.250 #7, 11, 13, 15, 17, 18
	5.3	p.225 #2-12 evens		5.2	p.258 #1, 3, 4, 6-12, 14, 17
	5.4	p.229 #1, 3, 5, 8-10, 12		5.4	p.279 #1-3, 5, 6, 8-18, 21
	5.5	p.234 #1-11 odds, 17-27 odds		5.5	p.295 #1, 2, 6-10, 12, 13, 15, 18
	5.6	p.238 #1-21 odds		5.7	p.316 #1-6

- When you are ready, ask your teacher for the Unit 7 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

GOAL

The goal of this unit is to increase your skills with polynomials.

OBJECTIVES

While completing this unit you will investigate the following topics and practice working with

- Multiplying and dividing monomials
- Adding and subtracting polynomials
- Multiplying and dividing polynomials
- Factoring trinomials
- Factoring a difference of squares
- Dividing a polynomial by a binomial

WHAT TO DO IN THIS UNIT

- Follow the column for the textbook you are using. Read and follow the example problems at the beginning of each section, then do the practice problems on the pages in the table below. Be sure to tick off each section as you complete it.

<i>Mathpower 10</i>			<i>Mathematics 10</i>		
✓	Unit	Practice by doing these questions	✓	Unit	Practice by doing these questions
	3.1	p.102 #1-51 odds, 53, 55, 57		6.3	p.340 #3, 8, 11-13, 15
	3.3	p.107 #1-83 odds, 85, 87, 89, 92		6.4	p.347 #1, 2, 4-7
	3.4	p.112 #1-47odds, 57		6.5	p.356 #2, 3, 10, 15, 17, 18, 21
	3.8	p.126 #1-13 odds, 19-47 odds		6.6	p.364 #3, 6-8, 13, 14, 17, 20, 21
	3.9	p.130 #1-53 odds		6.7	p.371 #4, 5, 7, 10, 15, 16, 18-20
	3.10	p.133 #1-43 odds, 47-55 odds, 56		6.8	p.376 #3-5, 7, 10, 14
				6.10	p.389 #4, 6-8, 10, 12, 14, 15, 17

- When you are ready, ask your teacher for the Unit 8 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.

GOAL

The goal of this unit is to increase your skills with rational expressions.

OBJECTIVES

While completing this unit you will investigate the following topics and practice working with

- Evaluating and simplifying rational expressions
- Multiplying and dividing rational expressions
- Adding and subtracting rational expressions

WHAT TO DO IN THIS UNIT

- Follow the column for the textbook you are using. Read and follow the example problems at the beginning of each section, then do the practice problems on the pages in the table below. Be sure to tick off each section as you complete it.

<i>Mathpower 10</i>			<i>Mathematics 10</i>		
✓	Unit	Practice by doing these questions	✓	Unit	Practice by doing these questions
	4.1	p.152 2-64 evens		7.1	p.402 #6, 11, 14, 16, 18
	4.2	p.158 #51, 52		7.2	p.407 #2-4, 7, 8, 10-12, 17
	4.3	p.163 #1-53 odds		7.3	p.413 #1, 3, 4, 7, 11, 12, 15-17
	4.4	p.167 #1-15 odds, 26, 28, 30		7.4	p. 421 #1, 4, 6, 7, 11, 13, 14, 16, 18
	4.5	p.172 #1-61 odds		7.5	p.428 #1, 3, 4, 6, 7, 13, 14, 16, 17, 19
	4.7	p.185 #1-69 odds		7.6	p.434 #1, 2, 4, 5, 7, 8, 10-13
	4.8	p.190 #1-31 odds		7.7	p.439 #2, 4, 7, 13, 14

- When you are ready, ask your teacher for the Unit 9 Test. Remember, you must get 80% to pass, so studying hard is essential to do well.
- Go over your work from Units 7-9 in preparation for Cumulative Test #3. When you are ready to write it, ask your teacher. Remember, this test is one chance only, so do your best.
- **Congratulations on finishing Math 10 Principles!**