The College of Staten Island
Office of Academic Support

**Math 20 Course Outline - June 2022**

Website
https://mth20immjuly19.commons.gc.cuny.edu/

**OER Textbook**
Arithmetic/Algebra Edition 3.0
by Marianna Bonanome, Holly Carley, Samar ElHitti, Thomas Tradler & Lin Zhou
http://academicworks.cuny.edu/ny_oers/5

**OER Homework Manual**
Arithmetic/Algebra Homework by Samar ElHitti, Ariane Masud & Lin Zhou
http://www.citytech.cuny.edu/mathematics/docs/MAT0650_HW.pdf

**Supplemental Materials and Practice Problems**

Calculator - Scientific Calculator Only
No Graphing or Programmable Calculators. Cell phones not allowed.

Day	Chapter	Topic	In-Class Practice Problems	Home Practice Problems
1 06/08/22	1 Supplement 2	Operation with Integers Absolute Value Multiplication and Division of Fractions	Pgs. 1-2: 1c, 1e, 2a, 2c, 3a, 3c, 4a, 5a, 7c, 8a, 10a, 10c, 10e Practice Problems: 1,3 Pgs. 4-6: 1a, 2a, 4a, 4c, 4e, 4g, 10a, 11a, 11c, 12a, 12c	Pgs. 1-2: 1b, 1d, 1f, 1h, 2b, 2d, 3b, 3d, 4b, 5b, 7b, 7d, 8b, 10b, 10d, 10g Practice Problems: 2,4 Pgs. 4-6: 1b, 1c, 2b, 2c, 4b, 4d, 4f, 4h, 10b, 11b, 12b
2 06/09/22	2 4 16 16, 17	Addition and Subtraction of Fractions Evaluating Algebraic Expressions Solving Linear Equations Solving Linear Equations with Fractions	Pgs. 5-6: 6a, 6c, 8a, 9a, 9c Pgs. 10-11: 1a, 1c, 4a, 7a, 7c, 7e Pg. 32: 1a, 1c, 1e, 1g, 2a, 2e, 2g, 2i Pg. 32: 1h, 2m; Pg. 35: 10a, 10c	Pgs. 5-6: 6b, 6d, 8b, 8c, 9b, 9d Pgs. 10-11: 1b, 1d, 4b, 7b, 7d, 7f Pg. 32: 1b, 1d, 1f, 2b, 2d, 2f, 2h, 2j Pg. 35: 10b, 10d, 10e **MMT Quiz 1 (Mandatory)**
3 06/10/22	19 21 3 3	Solving Literal Equations and Formulas Solving Linear Inequalities Decimals Converting:Fraction, Decimal & Percent	Pg. 38: 1, 3, 5, 9, 11 Pg. 41: 1a, 1c, 1e, 1g, 1i Pg. 8: 1a, 1c, 1e Pgs. 8-9: 2a, 2c, 4a, 4e, 5a, 5e	Pg. 38: 2, 4, 6, 8, 10 Pg. 41: 1b, 1d, 1f, 1h, 1j Pg. 8: 1b, 1d, 1f Pgs. 8-9: 2b, 2d, 4b, 4d, 5b, 5d

4	18	Percent Problems and Applications	Pg. 37: 6	
	Supplement	Percent Problems and Applications	Practice Problems: 5, 7, 9, 11, 13, 15	Practice Problems: 6, 8, 10, 12, 14, 16
	Supplement	Percent Increase and Decrease	Practice Problems: 17, 19, 21	Practice Problems: 18, 20, 22
	18	Ratio and Proportion	Pg. 37: 9, 10	
	Supplement	Ratio and Proportion	Practice Problems: 23, 25	Practice Problems: 24, 26
	18	Translating Statements to Equations and Solving	Pgs. 36-37: 1a, 1c, 1e, 1g, 5a, 5c	Pgs. 36-37: 1b, 1d, 1f, 5b, 5d
	18	Perimeter and Word Problems	Pgs. 36-37: 2, 11	
	Supplement	Perimeter and Word Problems	Practice Problems: 27	Practice Problems: 28, 29
06/13/22		**Review for Exam I**	**Review Sheet Handout**	**Review Sheet Handout** MMT Quiz 2 (Mandatory)
5		**Exam I (75 Minutes)**		
	25	Plotting Points and Verifying Solutions	Pgs. 47-49: 1, 3, 4a, 4c	Pgs. 47-49: 2, 4b, 4d
	25	Graphing Linear Equations Using the Chart Method	Pg. 49: 5a, 5c, 5e	Pg. 49: 5b, 5d
06/14/22	26	Graphing using the Intercept Method	Pg. 50: 1, 3	Pg. 50: 2
6	26	Slope-Intercept Form	Pgs. 50-53: 4, 6	Pgs. 51-52: 5, 7, 8
	26	Slope of a Line/Point-Slope Form	Pg. 52: 10, 12	Pg. 52: 11, 13
	Graphing Handout	**Graphing Handout**	**Graphing Handout**	**Graphing Handout**
	5	Laws of Exponents	Pgs. 12-13: 1, 3b, 3f, 4a, 5c, 9b, 10a	Pgs. 12-13: 2, 3c, 3e, 4b, 4c, 5d
	5	Zero and Negative Exponents	Pg. 13: 6a, 6c, 6e, 7, 9a, 10d	Pg. 13: 6b, 6d, 8, 9c, 10c
06/15/22				MMT Quiz 3 (Mandatory)
7	8	Addition and Subtraction of Polynomials	Pg. 18: 1a, 2a, 2c, 2e, 2g, 3a, 3c	Pgs. 18-19: 1b, 2b, 2d, 2f, 3b, 3d, 3e
	9	Multiplication of Polynomials and Multiple Operations	Pgs. 20-21: 1a, 1c, 1e, 2a, 2c, 3a, 3c, 4a, 4c	Pgs. 20-21: 1b, 1d, 1f, 2b, 2d, 3b, 3d, 4b
	10	Division of Polynomials	Pg. 22: 1a, 1c, 2a, 2c, 2e, 2g	Pgs. 22-23: 1b, 1d, 2b, 2d, 2f, 2h, 2i
06/16/22		**Review for Exam II**	**Review Sheet Handout**	**Review Sheet Handout**
8		**Exam II (75 Minutes)**		
	12	Factoring: GCF and Grouping Methods	Pgs. 26-27: 1a, 1c, 2a, 2c, 2e, 3a, 3c, 4a, 4c, 5a, 5c, 5e, 5g	Pgs. 26-27: 1b, 1d, 2b, 2d, 2f, 3b, 3d, 4b, 5b, 5d, 5f, 5h
	14	Factoring Trinomials Leading Coeff. of 1 (a=1)	Pg. 29: 1a, 1c, 1e, 1g, 1i	Pg. 29: 1b, 1d, 1f, 1h, 1j
06/21/22				MMT Quiz 4 (Mandatory)

9 06/22/22	14 13	Factoring Trinomials Leading Coefficient Greater than 1 (a > 1) Difference of Two Squares	Pg. 29: 2a, 2c, 2g Pg. 28: 1a, 1c, 1h, 2a, 2c	Pg. 29: 2b, 2d, 2f, 2h Pg. 28: 1b, 1d, 1i, 2b, 2d
10 06/23/22	20 27	Solving Quadratic Equations by Factoring Systems of Linear Equations: Using Elimination by Addition Method	Pg. 39: 1a, 1d, 1f, 2a Pg. 54: 1a, 1c	Pg. 39: 1b, 1e, 1g, 2b Pg. 54: 1b, 1d
11 06/24/22	27 Supplement	Systems of Linear Equations: Using Substitution Method Systems of Linear Equations: Using Graphical Method	Pg. 54: 2; Pg. 55: 1c Practice Problems: 30, 32, 34, 36, 38, 40	 Practice Problems: 31, 33, 35, 37, 39, 41 **MMT Quiz 5 (Mandatory)**
12 06/27/22	11 11 11	Simplifying Radical Expressions Multiplication of Radical Expressions Division of Radical Expressions	Pg. 24: 1a, 1c, 1e, 1g, 1i, 1k Pg. 25: 6, 8, 11a Pg. 25: 12a, 12c	Pg. 24: 1b, 1d, 1f, 1h, 1j Pg. 25: 7, 9, 11b Pg. 25: 12b, 12d
13 06/28/22	11 Supplement 20	Add./Sub. of Radical Expressions Solving Quadratic Equations using the Square Root Principle Pythagorean Theorem (Right Triangles) **Review for Exam III**	Pg. 24: 4a, 4c, 4e Practice Problems: 42, 44, 46, 48 Pgs. 39-40: 3, 5 **Review Sheet Handout**	Pg. 24: 4b, 4d, 4f Practice Problems: 43, 45, 47, 49 Pg. 40: 4 **MMT Quiz 6 (Mandatory)**
14 06/29/22		**Exam III (75 Minutes)** **Review for Final**	 **Review Sheet Handout**	 **Review Sheet Handout**
15 06/30/22		**Review for Final** **Final**	**Review Sheet Handout**	**Review Sheet Handout**

2022 June Immersion Program – Math 20 Workshops

As a student in this free course, you are given the opportunity to complete the MTH 20 requirements (non-credited developmental course that is offered by CSI at regular tuition rates). Students will test on the CUNY Elementary Algebra Final Exam (CEAFE) at the end of the Immersion program.

To pass MTH 20, students must:
- not be absent for reasons other than medical or personal emergencies (which must be appropriately documented)
- not be absent in excess of 12% of total workshop hours
- make-up all absences with tutoring (appointments must be made in 1L-117)
- have an average passing grade of 70 which is calculated as follows:
  - 65% based on three in-class exams and the online homework quizzes
  - 35% based on the cumulative final exam

- complete online homework quizzes and receive 70 and above on all homework before each test is due

EXAMS

There will be three in-class exams and a cumulative final exam. No make-up exams due to absences are permitted after the exam return date.

HOMEWORK, ONLINE TESTS AND STUDY PLAN

- Students are required to do the homework from the textbook (see your course outline for each day's assigned homework problems).
- Students must complete the online homework and score 70 or above the day each online homework is assigned on the course outline.
- Online quizzes may be completed on your personal computer at home or on campus in 1L-212.
- Free tutoring is provided by the Center for Academic Student Assistance (CASA) during the immersion program. Times and locations of the tutoring services will be given to you by your instructor.
- As you complete online tests in MyMathTest, the program will generate a personalized Study Plan showing your areas of weakness and providing questions for further practice. You are **strongly encouraged** to work on the study plan to achieve mastery in areas of weakness. Your instructor will monitor your progress.

GRADES

The only grades given in this course are the following:

S: 85% or better course average (includes fulfillment of all requirements stated above). Students must take **all** exams in order to pass the course.

P: 70% or better course average (includes fulfillment of all requirements stated above). Students must take **all** exams in order to pass the course.

F: Course average is below 70%