

The following topics and review problems should be used to help prepare for the Math 2 Final Exam.

EXTRA CREDIT: You will receive **1** extra credit point on the Final Exam for each set of Chapter review problems that you complete (you could raise your Final grade by 10 points (a full letter grade) if you complete each one). To receive full credit you must:

- Show all work!
- Perform problems with the highest quality - neat and readable.
- Complete ALL problems for the Chapter.
- Hand in prior to the Final on **Thursday, June 4th**.
- You must take the Final Exam to receive the Extra Credit!

Chapter 2 - Tools of Geometry

- 2.1 Building Blocks of Geometry (definition of terms)
- 2.2 Poolroom Math (definition of terms)
- 2.3 What is a Widget – Writing Definitions
- 2.4 Defining Lines and Angles – Parallel, Perpendicular, Complementary Angles
- 2.5 Supplementary Angles, Vertical Angles and Linear Pairs
- 2.6 Defining Polygons
- 2.7 Defining Triangles
- 2.8 Special Quadrilaterals
- 2.9 Space Geometry

Review Assignment Pages 127–129: 1-24 ALL, 32-40, 44-46, 51

Chapter 4 - Line and Angle Properties

- 4.1 Angle Relationships – Vertical Angles, Linear Pairs
- 4.2 Properties of Parallel Lines – Alternate Interior/Exterior, Corresponding Angles
- 4.3 Midpoint and Slope
- 4.4 Slope of Parallel and Perpendicular Lines
- 4.5 Slope-Intercept Form of a Line

Review Assignment Pages 217–219: 1-6, 25-37

Chapter 5 - Triangle Properties

- 5.1 Triangle Sum – Interior angles sum to 180 degrees
- 5.2 Properties of Isosceles Triangles
- 5.3 Triangle Inequalities
- 5.4 SSS and SAS (Congruence)
- 5.5 ASA and SAA (Congruence)
- 5.7 Isosceles Triangle Revisited

Review Assignment Pages 272-275: 1-4, 6-13, 16-18, 23–42, and 48

Chapter 6 - Polygon Properties

- 6.1 Polygon Sum
- 6.2 Exterior Angles of a Polygon
- 6.3 Properties of Kites and Trapezoids
- 6.4 Properties of Midpoints
- 6.5 Properties of Parallelograms
- 6.6 Properties of Special Parallelograms

Review Assignment Pages 319-320: 1-19, 27-30

Chapter 7 - Circles

- 7.1 Circle Definitions and Terms
- 7.2 Chord Properties
- 7.3 Tangent Properties
- 7.4 Arcs and Angles
- 7.5 Circumference/Diameter Ratios (PI)

7.7 Arc Length

Review Assignment Pages 365-367: 1-12, 17-32

Chapter 9 - Area

9.1 Rectangles and Parallelograms

9.2 Triangles, Trapezoids & Kites

9.3 Area Problems

9.4 Regular Polygons

9.5 Circles

9.7 Surface Area

Review Assignment Pages 470-471: 1-11, 23-30, 33, 40-43

Chapter 10 - Pythagorean Theorem

10.1 Pythagorean Theorem

10.2 Converse of Pythagorean Theorem

10.4 Special Right Triangles

10.5 Multiples of Right Triangles

10.7 Distance Formula

10.8 Circles and the Pythagorean Theorem

Review Assignment Pages 517-519: 1-11, 13, 14-24 EVEN, 25-33

Chapter 11 - Volume

11.1 Polyhedrons, Prisms and Pyramids (including Euler's Formula)

11.2 Solids with Curved Surfaces

11.3 Volume of Prisms and Cylinders

11.4 Volume of Pyramids and Cones

11.6 Displacement and Density

11.7 Volume of a Sphere

11.8 Surface Area of a Sphere

Review Assignment Pages 571-573: 1-4, 6-9, 11-14, 16-24, 28, 31, 32

Chapter 12 - Similarity

12.1 Ratio and Proportion

12.2 Similarity

12.3 Similar Triangles

12.4 Indirect Measurement with Similar Triangles

12.5 Corresponding Parts of Similar Triangles

12.6 Proportions with Area and Volume

12.7 Proportional Segments by Parallel Lines

Review Assignment Pages 634-636: 1-3, 7-11, 13-16, 18-26

Chapter 13 - Trigonometry

13.1 Trigonometric Ratios

13.2 Problem Solving with Right Triangles

13.4 The Law of Sines

13.5 The Law of Cosines

Review Assignment Pages 672-674: 1-15, 17-18, 23-26