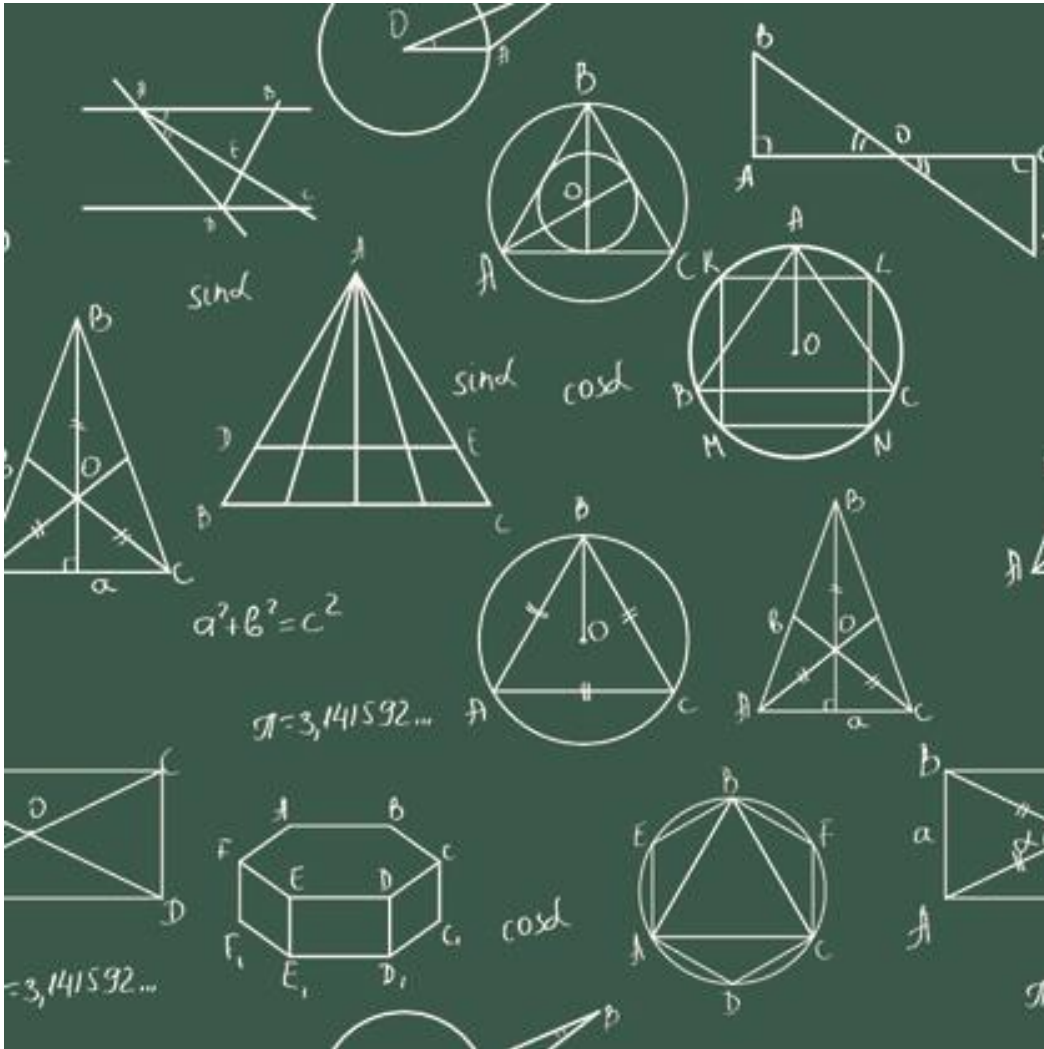


Geometry

Quarter Three



"Inspiration is needed in Geometry, just as much as in poetry." -**Alexander Pushkin**

Essential understanding

Geometry brings math to life with many real-life applications. Examples of mathematics in sports, engineering, and carpentry will be shown throughout this unit. Three key aspects of geometry that will be emphasized are measuring, reasoning, and applying geometrical ideas. As you explore the applications presented in this quarter, try to make connections between mathematics and the world around you.

Overview

Lessons will be given in class. You will have multiple mini lessons throughout the week. If you are struggling with a concept, it is your responsibility to review the lessons and ask questions. I will answer any questions you have during the lesson but after that we will follow the “three before me” principle. You must ask three of your peers before you ask me for help.

Math Journal: I encourage use of your geometry journal during lessons and work time. I advise you to use your journal to take notes during lessons and to work on assignments. Make sure it is neat and organized. Any and all important information from the lessons should be kept in this journal. You will be able to use your journals for formative assessments (quizzes).

General Guidelines:

Problem Sets – 40% of your grade is based on completing each homework assignment.

Homework Assignments Are Recommended Problems For Learning (and are required to pass this class!!). It is recommended that you do the assignments or similar math problems in order for you to understand and retain the concepts. Use the work period to ask for help from your peers and teacher. **You will submit pictures of your assignments through Google Classroom by Sunday night (11:59pm) each week.**

Quizzes/Assessments – Quizzes/Assessments make up 30% of your grade and you must complete each quiz/assessment prior or on the date it is scheduled. **Remember: you can always use your notebook on quizzes and exams.** You must make at least 70% to “pass” the quiz/assessment. If you do not pass a quiz, you may retest using a similar exam during my tutoring hours. You may also correct quizzes for half the remaining credit.

Final Assessment – The final will make up 30% of your grade. You will not be able to make up the final exam. That is why it is important that you record the notes from the lessons and you do the suggested homework assignments. Practice the concepts in order to master them. **Your final project is also a part of your final assessment grade.**

Big Ideas

- 1) Properties of Triangles
- 2) Quadrilaterals
- 3) Properties and theorems on triangles

Vocabulary

- 1) Quadrilateral
- 2) Concave/Convex
- 3) Parallelogram
- 4) Concurrent Lines
- 5) Circumcenter
- 6) Transformation
- 7) Vector

Individual work

Guiding question 5:

How can a goalkeeper best defend the goal? What kind of strategies can we apply to find the optimal distance between any three points?

1) 5.2 Bisectors of a Triangle:

_____ p.275 #'s 4 through 22 (evens)

_____ Mixed Review p.278 #'s 32 through 40

2) 5.3 Medians and Altitudes of a Triangle:

_____ p.282 #'s 4 through 26 (evens)

3) 5.4 Midsegment Theorem:

_____ p.290 #'s 4 through 28 (evens)

_____ Mixed Review p.293 #'s 39 through 49

4) 5.5 Inequalities in One Triangle:

_____ p.298 #'s 6 through 26 (evens)

_____ Mixed Review p.301 #'s 39 through 49

Assessment: Chapter 5 (February 10th)

Guiding question 6:

How are overhead shots tale for movies? How does the concept of quadrilaterals aid in building hydraulics?

5) 6.1 Polygons:

_____ p.325 #'s 1 through 45 (odds)

_____ Mixed Review p.328 #'s 55 through 63 (odds)

6) 6.2 Properties of Parallelograms:

_____ Part 1: p.333 #'s 1 through 31 (odds), 39, 45, 46

_____ Part 2: p.333 #'s 32-38 (all), 40 through 44 (all)

7) 6.3 Proving Quadrilaterals are Parallelograms:

_____ Part 1: p.342 #'s 1 through 29 (odds)

_____ Part 2: p. 344 #'s 32 through 37 (all)

_____ Mixed Review p.345 #'s 39 through 47 (odds)

8) 6.4 Rhombuses, Rectangles, and Squares:

_____ Part 1: p.351 #'s 1 through 37 (odds)

_____ Part 2: p.352 #'s 39 through 53 (odds)

_____ Mixed Review p.355 #'s 73 through 81 (odds)

_____ QUIZ FOR LESSONS 6.1 – 6.4 (March 3rd)**9) 6.5 Trapezoids and Kites:**

_____ Part 1: p.359 #'s 1 through 23 (odds), 39, 40, 41

_____ Part 2: p. 359 #'s 29 through 37 (odds), 46, 47, 48

10) 6.6 Special Quadrilaterals

_____ p.368 #'s 17 through 41 (odds)

11) 6.7 Areas of Triangles and Quadrilaterals

_____ p.376 #'s 15 through 37 (odds), 59

_____ Mixed Review: p.380 #'s 63 through 69 (all)

Assessment: Chapter 6 (March 17th)

Guiding question 7:**How do architects use transformations?**

12) 7.1 Rigid Motion in a Plane:

_____ p.399 #'s 13 through 39 (odds)

13) 7.2 Reflections:

_____ p.407 #'s 15 through 31 (odds)

_____ Mixed Review: p.410 #'s 57 through 71 (all)

14) 7.3 Rotations:

_____ p.416 #'s 13 through 31 (odds)

_____ Mixed Review: p.419 #'s 45 through 54 (all)

15) 7.4 Translations and Vectors:

_____ p.425 #'s 15 through 33 (odds)

_____ Mixed Review: p.428 #'s 62 through 73 (all)

assessment Week of April 2nd:

_____ Chapter 5, 6 and 7 Final

_____ Final Project

