2018-2019

ANOKA HIGH SCHOOL

Math Department: Honors Precalculus (A)

E-mail: chri.fenwick@ahschools.us Office Hours: 7:15am to 7:40am and 2:20pm to 2:50pm

Chapter 1 – Linear Relations & Functions (Presumed Knowledge)

3 – 4 days

1. I can determine whether a given relation is a function. (Section 1)
2. I can identify the domain and range of a function. (Section 1)
3. I can find composite functions. (Section 2)
4. I can graph linear equations and inequalities. (Sections 3, 8)
5. I can write the equation of a line in slope-intercept, point-slope and standard form. (Section 4)
6. I can write the equation of a line parallel or perpendicular to another line. (Section 5)
7. I can identify and graph piecewise, absolute value and step functions. (Section 7)

UNIT 1 – The Nature of Graphs (Chapter 3) – (Knowledge engagement)

11 – 12 days

8. I can graph functions, relations, inverses and inequalities. (Sections 1, 3, 4, 7)
9. I can transform parent graphs using reflections, translations and dilations. **(Teacher note: including $f|x|$ and $|f(x)|$).** (Sections 1-5)
10. I can recognize and describe continuity, end behavior, extrema, asymptotes, symmetry (odd and even functions), and connect these concepts to graphs of functions. (Section 6)

UNIT 2 – Conics (Chapter 10)

9 – 10 days

11. I can write the equation of a conic section (circle, ellipse, hyperbola, and parabola) in standard form. (Sections 2-5)
12. I can graph conic sections. (Sections 2-5)
13. I can convert a conic from general form to standard form. (Sections 2-5)
14. I can find the coordinates of any vertices, foci, equations for asymptotes, directrix, and lines of symmetry for each conic as appropriate. (Sections 2-5)
15. I can use conic sections to model real world situations. (Sections 2-5)
16. I can identify the type of conic section from its general form. (Sections 2-5)

UNIT 3 –Trigonometric Functions (Chapter 5)

11 – 12 days

17. I can apply and understand the notion of rotations, revolutions and co-terminal as they relate to the conversion of degree measures. (Section 1) - embedded
18. I can determine the reference angle for any given angle. (Section 1)
19. I can find missing sides and angles in right triangles using right triangle trigonometry. (Section 2)
20. I will be able to find angles on the unit circle as well as find all 6 of the trigonometric ratios for that angle. (Section 3)
21. I can find missing sides and angles in non-right triangles using the Law of Sines and the Law of Cosines. (Section 6-8)
22. I can model and solve real world problems using triangles and trigonometry. (Section 5)
23. I can find the area of any triangle (Sections 6 & 8)

UNIT 4 – Graphs of Trigonometric Functions (Chapter 6)

11 – 12 days

24. I can change between radian and degree measure. (Section 1) - embedded
25. I can locate angles expressed in radian on the unit circle. (Section 1) - embedded
26. I can identify the amplitude, period, horizontal shift, and vertical shift given the equation of trig function and I can sketch the corresponding graph. (Section 3-5)
27. I can write a sinusoidal function given various information. (Section 3-5)
28. I can model real world data with sinusoidal functions. (Section 6)
29. I can identify the domain and range of a trigonometric function for both unrestricted and principle value trigonometric functions. (Section 7-8)
30. I can find and sketch the inverse of a sinusoidal function and vice versa. (Section 8)
31. I can evaluate trigonometric expressions. (Section 8)

Grading:

Grades will approximately be determined based on mastery of learning targets (LT) (78%) established for the class and a cumulative final exam (22%). After a chapter assessment is given, on a student's grade report there will be one of five comments for each learning target in the chapter. The five comments are: **mastered**, **mastered after retest, retest taken, not mastered but practice completed** and **not mastered and practice not completed**. Mastery of a learning target is defined as passing with 75% or more on each learning target.

Assignment	Assignment Type	Resources	Score	Score Type	Points	Notes
# of Mastered Targets	Mastery of Learning Targets	0	5 out of 7.00	Raw Score	5.00/7.00	
LT #1 function?	Learning Targets	0	Not Graded	Raw Score	1.00 Points Possible	Mastered
LT #2 Domain/Range	Learning Targets	0	Not Graded	Raw Score	1.00 Points Possible	Mastered
LT #3 Composite	Learning Targets	0	Not Graded	Raw Score	1.00 Points Possible	Not Mastered - Practice NOT Completed
LT #4 Linear eqn./inequality	Learning Targets	0	Not Graded	Raw Score	1.00 Points Possible	Mastered
LT #5 Write eqn.	Learning Targets	0	Not Graded	Raw Score	1.00 Points Possible	Mastered after Retest
LT #6 Write parallel/perp.	Learning Targets	0	Not Graded	Raw Score	1.00 Points Possible	Mastered after Retest
LT #7 graph piecewise, abs. value, step	Learning Targets	0	Not Graded	Raw Score	1.00 Points Possible	Not Mastered - Practice NOT Completed
				Totals	Current Score C- (71.4%)	

Example: Jon is passing at this point, he has mastered 5 of 7 learning targets (5/7 = 71.4% C-). He **mastered** learning targets (LT) 1, 2, and 4. He has **not mastered –practice not completed** on LT 3 and 7. Before he can retest on targets 3 and 7 he needs to complete the original assigned practice and complete some additional practice. The additional practice necessary is given at the discretion of the teacher. Learning targets 5 and 6 he **mastered after retest**.

The students overall grade is calculated: 85% based on the number of learning targets mastered out of the total assessed and a summative district final worth 15%.

93% - 100%	A	87% - 89%	B+	77% - 79%	C+	65% - 69%	D
90% - 92%	A-	83% - 86%	B	73% - 76%	C	0% - 64%	F
		80% - 82%	B-	70% - 72%	C-		

Materials needed in class every day:

Textbook Notebook Calculator (TI-83 or TI-84) Pencil Graph Paper

Calculator: Calculator use is encouraged on almost all assignments, activities and tests. Graphing calculators increase the student's ability to learn mathematical concepts and procedures more efficiently than strict paper and pencil routines. I do have graphing calculators for use in class. If you purchase a graphing calculator please bring the UPC in for the math department to purchase more resources for use in the classroom.

Tests:

If you are absent on the day of the test, you are requested to make the test up before or after school within 1 week. Students found to be cheating will receive a zero on the test or quiz. Anyone caught using a cell phone during a test will receive a zero on that test. This will affect your grade!!

Cell Phone Policy:

There are significant concerns about cell phones during testing. The official school statement is as shown below. Please know that it will be enforced in my classroom. ***The use of a cell phone/unauthorized electronic device during a period where an assessment is given (test, quiz, etc.) will be considered cheating regardless of the intention, resulting in a zero for the assessment and referral to the office for possible disciplinary action.***