

MAC 2312: Calculus II
Online Sections 7E93, 7E97
Summer 2019

CONTACT INFORMATION:

COURSE COORDINATOR

Name: KL Chui

Office Location: LIT 376

Office Hours:

Office Phone: 352-299-2244

Email: chui@ufl.edu

TEACHING ASSISTANT

Carol Demas

LIT 417

see Canvas Homepage

352-294-2364

demasc@ufl.edu

Text: There is no required text book. You may use any calculus book as reference. In particular, Calculus Early Transcendental by Stewart is a great reference book, any edition is good. A free open source textbook, Openstax is also another good option.

<https://openstax.org/details/books/calculus-volume-2>

Lecture Outline: You may purchase a printed packet from Target Copy on 1412 W. University Ave. (Not the Target Store). (ask for MAC2312 **Online**). You may also print it off from Canvas.

Course Management System: CANVAS, lss.at.ufl.edu

Online Homework: You will access it in Canvas.

UF Free Tutoring Service: www.teachingcenter.ufl.edu

MAC 2312 -- ANALYTIC GEOMETRY & CALCULUS II

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MAC 2312 Online Course Calendar, Summer 2019

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1(L1-4) 5/12	Class Begin	Syllabus Quiz Due	LQ1, 2 Due Basic Integration		LQ3, 4 Due
Wk 2(L5-8) 5/19		IBP, Trig Int	LQ5, 6		LQ7, 8
Wk 3(L9-11) 5/26		TrigSub	LQ9 UHW1		LQ10,11
Wk 4(L12-14) 6/2		PFD	LQ12		LQ13,14
Wk 5(L15-17) 6/9		Improper Int. PEInt(L1-10)	LQ15 DIS1 UHW2, UE1R	Exam 1 (L1-13)	LQ16,17
Wk 6(L18-20) 6/16		Seq.GeoTelTFD	LQ18		LQ19,20
Wk 7(L21-23) 6/23		IT, LCT/DCT	LQ21		LQ22,23
Wk 8(L24-26) 6/30		AST. RatioRoot	LQ24		LQ25,26
Wk 9(L27-29) 7/7		PEConTests (14-23)	LQ27 DIS2 UHW3, UE2R	Exam2 (14-23)	LQ28,29
Wk10(L30-32) 7/14		RIR; Taylor	LQ30		LQ31,32
Wk11(L33-35) 7/21		TPA, PE. PEPow(24-29)	LQ33 UHW4		LQ34,35
Wk12(L36) 7/28		Polar Areas PEPol(30-35)	LQ36 DIS3 UHW5, UE3R	Exam3 (24-35)	LQ37
Wk13(L37) 8/4		Volume PEVol(36-37)	Verify grades UHW6, UE4R DIS4	Final (L1-37)	Class ends

All exams: open from 6AM – 10PM. Schedule a test time with ProctorU at least a week ahead to avoid fees. Schedule an exam to begin no later than 7pm.

- You will have one week from when a score is posted to discuss grading with your discussion instructor. **Verify and resolve all Canvas grade issues by the last Thursday (except for the final exam). Absolutely No grade disputes after the last day of the term.**
- All Google assignments are open at the beginning of the term and due at 11:59 pm on due dates. You may always complete them early if you have other plans, but not late. No extensions!**
- UHWx– Upload Written Homework Due. UExR- Upload Exam Review Due.**
- Discussions (Extra Credits)-Exam material: (**DISn**), see Discussions for more details.
- All due dates in the calendar are absolute due dates. But you may always complete and submit assignments early, except for the exams which must be taken on the specified dates. **Due date is NOT Do date.** If you wait to submit and you run into any submission issues, **you will be out of luck.** The Due date is the absolute last date the assignment is to be received by Canvas.
- Instead of having 4 lessons due each week and have a summer break, we make it more flexible for you to pace yourself by having 3 lessons due for most of weeks. You may do more lessons and complete them early if you have plans for breaks.

2. INTRODUCTION

2a. COURSE DESCRIPTION and CONTENT. MAC2312, Calculus II, is the 2nd semester in a three semester calculus sequence. The course begins where MAC2311 left off at the integration techniques. This is followed by a study of infinite sequences and series, parametric equations and polar coordinates and closed with applications of definite integrals. A minimum grade of C (not C –) in MAC 2312 satisfies four credits of the University General Education Mathematics requirement.

This is an ONLINE VERSION of MAC2312 – all content is delivered online. Students view 37 online **lecture videos** and complete **lecture quizzes** in the course management system Canvas. Students also complete **online homework and upload written homework** in Canvas. Students are encouraged to **post** questions and answers on the course **Discussion Board** in Canvas. **Three unit exams** and a cumulative **final exam** are posted in Canvas and administered through ProctorU. **There is no drop of any exams. You must take the exams on the assigned dates.**

2b. PREREQUISITES. MAC2312 assumes that you have essential PreCalculus skills (both Algebra and Trigonometry) necessary to succeed in this course as well as the calculus 1 skills. Students should be able to do arithmetic without a calculator. In the last section of this syllabus, students may find a short list of review materials to practice.

A grade of C in UF MAC2311 meets the minimum requirement for the course. We encourage students to review the prerequisite material to gain a strong knowledge in order to succeed in calculus II. MAC2312 begins with integration chapter, you should already be competent in integrating simple functions such as a power function, exponentials, sine and cosine and the use of u-substitution. We strongly recommend students who are having difficulty with these core calculus skills to review MAC2311 (or take the course if you have not done so). You may switch courses on one.ufl.edu during the drop-add period.

2c. REQUIRED MATERIALS.

Lecture Notes Outlines: See 2f.

Computer access and requirements: All assignments should be taken on a computer, not cell phone or tablet, since there may be compatibility issues with CANVAS. Be sure you are using a browser (Chrome, Firefox) that works with Canvas (Do Not use Safari); **DueDate is NOT DoDate.** Internet sometimes is not reliable, a reason you should not wait till last minute to complete your online assignment. If your computer or internet goes down while you try to submit an assignment, you will need additional time...etc. If you miss a due date, no credit nor extension will be given for the work not submitted. Always allow plenty time to submit your work after you have prepared them thoroughly. It's student's responsibility to have a reliable internet and computer. **You are**

responsible for having access to a hardwired Ethernet connected working computer and complete and submit your work early.

Calculators: A graphing calculator or computer program can be useful as a learning tool when used appropriately, but they are not essential. I recommend the online graphing calculator Desmos(www.desmos.com). Calculus is a collection of concepts, ideas and process that are not mastered through calculator skills. No calculators are allowed during exams.

2d. ASSIGNMENT CALENDAR. Check the course calendar in Syllabus for due dates and plan your schedule accordingly. **You may complete your homework early, but you must take exams on the assigned dates. No extensions for late submissions.**

2e. CANVAS. An UF courses management system, is located at <https://lss.at.ufl.edu>. Use your Gatorlink username and password to login. All course information including your grade, course syllabus, course homepage, lecture videos link, office hours, exam schedules, ProctorU, mail tool...etc. can be accessed from this site between the start and end dates of the term.

You are responsible for verifying that all grades are accurate. You have one week after a score has been posted to resolve any grade concerns. Contact your TA if you believe there has been a grading or recording error. **There is absolutely no grade dispute at the end of the term.**

Please note: Important course information is clearly communicated in this syllabus. Assignments and course materials are easily accessible through the CANVAS. If you can not find your answer in the resources above, please use the **Discussion Board** in CANVAS to post questions and to supply answers to your fellow students. If you need to email your instructor for private issues, it is absolutely crucial that you write '**Online Calc2**' in the subject line so it can be put in the correct context.

BE SURE TO TURN ON the ALERTS from Canvas so that you get timely course information.

2f. LECTURE VIDEOS. The lecture videos provide the main presentation of course material. You may access each video directly through each Lecture on Canvas HomePage. Rewatch it if necessary. Attend Conference office hours if you need any help. You may also post Q & A in Discussions Board (via the Discussions tab on the left side of Canvas).

To stay current with the course, you must watch the lecture video weekly following the schedule posted in the course calendar. Start early so you don't miss the due dates. **No extension.**

It's possible to get ahead in this class if you complete each assignment early, but you **must take exams on the specified dates. If you have other commitment, adjust your schedule to complete**

the assignments earlier rather than later. You should watch the lectures and answer the corresponding Lecture Quiz in Canvas before attempting homework.

Lecture Notes outlines: It is important that you should have a paper copy of the lecture outlines. This will make it easier to take notes and to follow the lecture when watching the videos. Students can obtain the printed outlines from the Target Copy Center (not the Target store) at 1412 West University Avenue, or print them out from each lecture in Canvas.

2g. SUCCESS: Other than having a strong precalculus and calculus I background, success in MAC 2312 depends largely on your attitude and effort. **Keeping up with the videos** is critical. You may find it beneficial to **work daily** on the material as opposed to saving it all for one day. It is not effective to watch video and copy notes without following the thought processes involved in the lecture. For that reason, there are **Lecture Quizzes** within each lecture which you will need to **submit the answer in Canvas** as part of your course grade. (see 2f and 3d)

Be aware that much of the learning of mathematics at the university takes place outside of the classroom (in the case of an online class, additional time working on the material after watching the lecture videos). You need to spend time reviewing the concepts of each lecture from the video and your notes **before** you attempt homework problems. As with most college courses, you should expect to spend a **minimum** of 3 hours working on your own (in addition to watching the lecture video) for every credit hour of the class. MAC 2312 is a 4 credit course, which means **at least 12 hours per week** preparing and practice problems for this course and **additional hours spent watching the lecture videos**. Keep in mind that the goal is to be able to **apply the techniques of calculus** to problems, not just reproduce the problems you see in the class.

Do you know that it takes roughly 42 lecture hours in colleges vs. roughly 142 lecture hours in high school to complete a calculus course? The fact of the matter is that college course goes 3⁺ times faster and that **you probably won't do well if you don't watch lecture regularly or wait till the week of the exam to start preparing for the exam. Therefore, it is critical that you keep pace with the course material and assignments each week.** Do not fall behind. Use the resources available as you study! We encourage you to ask questions on the Discussion Board, seek **help** from your teaching assistant (TA) during online office hours and, the Broward Teaching Center, www.teachingcenter.ufl.edu, for free live and online tutoring services. Do not let misunderstandings go unanswered.

We encourage students to work together, and an important resource to facilitate communication in an online course is the MAC2312 **Discussion Board** in CANVAS. You should check the Discussions Board regularly, posting questions and answers. The effort of asking questions and communicating ideas clearly with fellow students, as well as the practice of writing solutions, are effective tools in helping you better understand calculus concepts. This is YOUR forum, take advantage of it by participating in it.

In studying calculus, you must be careful not to let a tutor, a friend or calculator ‘think’ for you. Be sure to compare with the **class material** and ask questions and make sure that you can work out problems completely on your own before an exam. Be a responsible learner!

It’s our hope that through focused study and practice you will gain a true appreciation for the important concepts of calculus and their application. We want you to succeed in this class! You must be positive and keep up with the course material and take the initiative to **get help in time, before you get too far behind. Students with a positive attitude who are intellectually engaged in learning the material will get the most from the course.**

2h. STUDENTS WITH DISABILITIES. UF welcome students with disabilities into the UF programs. Students requesting classroom accommodations must first register with the Dean of Students Office Disability Resource Center (DRC), www.dso.ufl.edu/drc/, (352-392-8565). The DRC will provide documentation to the student who must then provide this to the instructor as soon as possible when request accommodation.

2i. ACADEMIC HONESTY.

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

Academic Honesty Guidelines: “All students are required to abide by the Academic Honesty Guidelines which have been accepted by the University. The academic community of students and faculty at the University of Florida strives to develop, sustain and protect an environment of honesty, trust, and respect. Students are expected to pursue knowledge with integrity. Exhibiting honesty in academic pursuits and reporting violations of the Academic Honesty Guidelines will encourage others to act with integrity. **Violations of the Academic Honesty Guidelines shall result in judicial action** and a student being subject to the sanctions in paragraph XIV of the Student Code of Conduct”.

The mathematics department expects you to follow the Student Honor Code. We are bound by university policy to report an instance of suspected cheating to the proper authorities.

You may find the Student Honor Code and read more about student rights and responsibilities concerning academic honesty at the link www.dso.ufl.edu/sccr/.

In addition, we remind you that **lecture videos and the interactive guided study in Google Drive are the property of the University/faculty member and may not be distributed/shared without prior permission from the coordinator and may not be used for any commercial purpose.** Students found to be in violation may be subject to discipline under the Student Conduce Code.

3. GRADING

3a. COURSE GRADE. Your course grade is determined as follows:

Syllabus Quiz and Lecture Quizzes	5%
Online Homework (by topics)	5%
Online Homework (by units)	5%
Written Homework (upload)	10%
Written Exam Review (upload)	10%
<u>3 Semester Exams + 1 cumulative Final</u>	<u>65%</u>
Total:	100%

In addition, there are extra credits opportunities (see 3g).

Your course grade will be determined according to the following scale.

There will be no additional curve in this course, extra assignments for individual students to improve a grade are NOT possible.

A	90% – 100%	C	70% – < 74%
A –	87% – 90%	C – *	67% – < 70%
B +	84% – < 87%	D+	64% – < 67%
B	80% – < 84%	D	60 % – < 64%
B –	77% – < 80%	D –	50% – < 60%
C +	74% – < 77%	E	< 57%

*Note: A grade of ‘C –‘ DOES NOT give University General Education credit!

For those taking the ‘S – U’ option: S[> 70%] U[< 70%]

Approval of the ‘S – U’ option must be obtained from your instructor and approved by the registrar’s office. The deadline for filing an application with the Registrar and further information about the ‘S – U’ option are found in the undergraduate UF Catalog.

3b. INCOMPLETE GRADES POLICY. A grade of I (incomplete) will be considered only if you meet the math department criteria which is found at <http://www.math.ufl.edu/fac/incompletes>. If you meet the criteria you must see the instructor before the beginning of the finals week to be

considered for an I. **A grade of “I” only allows you to make up your incomplete work. You can not redo any previously completed work, nor closed work.**

Missing an exam due to negligence, however, will result in a minimum 10–point penalty.

3c. GETTING STARTED - START HERE: INTRODUCTORY VIDEO, SYLLABUS QUIZ.

Log in to Canvas and click on the **Start Here page**. Watch the Introductory video and then read the important information. After you feel comfortable with the course policies, take the **syllabus quiz** posted in Canvas. The syllabus quiz is to make sure you understand what is expected of you in this course. After completing the introductory part and achieve at least 80% in the syllabus quiz, you are ready to move to the main content: Lecture 1 – Lecture 37.

3d. VIDEOS AND LECTURE QUESTIONS. MAC2312 is organized into 37 lectures, each lecture has an introductory page including the concepts to be covered, things you need to do for this lecture. From there, you may access a copy of the note outlines, link to the **lecture videos** and link to the **homework**. Viewing the video is an important aspect of the learning process. There are several simple **Lecture Quiz** to be completed in each lecture. You need to work out these problems as you watch the video. We encourage you to use the notes as well as the videos or the Discussions Board to help answer these questions which are not timed, you have 2 submissions to complete each quiz. The two lowest Lecture Quiz scores will be dropped to offset possible credit lost due to technical issues or a missed assignment. **No Extension.**

NOTE: At the time of the taping, we used a specific text book. Please go by the ‘topic name’ and not any chapter numbers.

NOTE: There are minor typos in some of the lecture videos. Post them in Discussion Board if clarification is needed.

3e. HOMEWORK. There are online assignments as well as written assignments: **(No extension!)**

1. **Online Homework** – You may access all online assignment in Canvas. Access the Lecture Quizzes within each lecture circle on Canvas homepage, access Google online assignments the same way or, by clicking on the Assignment tab on the left side of Canvas.
2. **Written Homework** – to be uploaded in Canvas:
There are two written homework assignments. Here, you get the opportunity to practice writing out math. The first one is the written work you did while working on the above **Google problems** in GLC2. Go to the Assignments tab in Canvas, click on ‘Upload Homework (Google)’. The second one is for exam reviews. Click on ‘Upload Exam

Review' to find the past exams and exam review to work on. Scan your completely worked out solution and upload them in pdf file before due date.

Why GLC2 and What is GLC2? Quite often, students in the online class can suffer from the lack of opportunity and ability to write mathematics and that they do not have enough resources when it comes to worked-out examples. As a result, I have created an 'Interactive Guided-Learning Calculus 2' (GLC2) in Google in hope to give students a valuable resources to guide you through the course successfully. The flow of the structure is as follows: Students will

- **LEARN** from watching the lecture videos,
- **REVIEW** the Notes and annotated Examples in GLC2,
- **PRACTICE** by working out more examples in GLC2 and writing out complete solutions
- **TEST** their understanding by taking the multiple choice questions (Quiz and the Practice Exams like) in GLC2 and writing out the complete solution and upload them in Canvas for the written homework grades.

In the GLC2 notes section: You will find a brief summary of each topic covered in the course follow by examples with annotated solutions and, more examples for you to practice. These practice examples also have worked out solutions that is just a click away. After you have worked out all the examples, you should be ready to test your understanding by taking the multiple choice problems. You can start as early as you watch the first video in that unit.

The multiple choice questions are your homework assignments, they provide you the opportunity to review the concepts and test your understanding before exams. You are allowed to get help on these homework problems. Remember that the important thing is to learn the material well before exams.

Go to each lecture in Canvas Homepage to access these homework in GLC2. You will have unlimited time before due date with 2 submissions. There is 1 drop in the homework by topics, but not in homework by units.

NOTE: There are no makeups. Do not try to complete an assignments in one sitting; Remember: Due Date is NOT Do Date! Start and submit early so you won't miss the deadline and to give you time to digest and absorb the material. **The homework will be closed for submission after the deadline**, but remains open for review and practice till the end of the term.

NOTE: The purpose of homework is to practice problems in order to understand and master the material learned. Complete them before each exam. Complete them after exams is not helpful to your learning nor your grades.

If you are experiencing problems with logging in GLC2 in general, please contact your TA immediately, **your TA is your first contact in the course**. You may also use the Discussions Board.

NOTE: Post your **math questions** to the discussions board. Do **not use email** for math problems or non-private issues.

3f. EXAMS. See 4. TESTING.

3g. EXTRA CREDIT. You have opportunity to earn additional points: Answer questions posted by your classmates in Discussions. See Discussions for details.

3h. ADDITIONAL PRACTICE PROBLEMS. There are also problems listed at the end of each lecture in the note outlines, called ‘Now You Try It’ (**NYTI**). These were written by the course coordinator and are designed to emphasize important concepts and provide extra practice of the lecture material. Some of them are included in the Lecture Quiz as well. NYTI problems are not graded, but it is strongly encouraged that you work them out. Solutions to NYTI are posted in the Syllabus Tab in Canvas.

4. TESTING.

There are three 90-minute unit exams and one two-hour **cumulative final** exam. The exams will be given in Canvas and administered through ProctorU. You must register with ProctorU at <http://go.proctoru.com> for each exam at least 1 week prior to the exam date to schedule a 120 (90+extra 30)* minutes time block for each unit exam and a 150 (120+30)* minutes block for the final. All exams are open from 6AM – 10PM EST only, schedule your exam to start no later than 7PM EST.

Make sure you are available to take the exam at the designated date and time.

***Possible ProctorU issues, temporary internet issues during exams:**

We offer 30 extra minutes on all exams to compensate for possible internet problems, times when the keyboard is disabled by ProctorU, or any other technical issues that may arise.

*Please **do not request a retake** for any exam unless you have documented evidence that your disconnect or technical issues **exceeded 30 minutes and it is not due to your negligence**. It's your responsibility to have a reliable internet connection and fast enough computer/internet speed. You will not be able to request a make up exam if problems arise due to your own negligence.*

*Please **do not use Safari** while working on math equations. We will not accommodate you if you can't view math properly when you use Safari.*

If you are uncertain as to the reliability of your internet service provider or internet connection, find a place to take your exam where the connection is reliable or, take the conventional course.

We urge you to **connect to Proctor U** Help Desk representatives, **at least a few days prior to your exam**, <http://www.proctoru.com/testitout> and do a live chat via ‘Connect to a live person’ to **confirm your connection and equipment are all good**. It is your responsibility to be sure that you have a reliable Ethernet internet connection and verify with the proctor for an acceptable internet speed, location & environment (ex. webcam) to ensure that it meets proctoring requirements. Go to <http://www.proctoru.com> for more details. If your answers are not received by Canvas due to your faulty connection/equipment, they are lost for good, we are not able to take anything else to replace your lost answers.

Follow the proper procedure to log off the exam before disconnect from proctor. Failure to do so may result in a 0 on the exam.

Note: You may NOT use a calculator or any other aid for exams. Be sure to read the ProctorU handout thoroughly to understand the exam procedures before you go to a test.

4a. SEMESTER UNIT EXAMS. . Each Unit Exam will be given in Canvas and scored on a scale of 0 to 70 points, consisting only multiple choice questions. The exam is locked after the test. You may request a 15 minutes private conference within one week to review your exam with your TA.

4b. FINAL EXAM. A mandatory, cumulative final exam in Canvas will be given on the date shown in the course calendar. The exam consists of multiple choice questions only and graded on a scale of 0 to 100 points. You may request 15 minutes conference to go over your exam.

4c. MAKEUP POLICIES. Exams must be taken on the exam date.

1. **Make up – Exams:** If **serious** illness or other last minute **extenuating** emergency circumstances cause you to miss an exam, you must contact your TA within 24 hours of the exam with a valid documentation for approval and reschedule the exam with ProctorU. To be considered for such a make up exam, you must have completed at least 75% of all the course work thus far and have completed all prior exams. Contact your TA immediately if you have court order, or contact your TA during first week of the term if you have religious observance that conflict with any exams.
2. **Other make ups:** There are **no make up** on any course work nor extra credit opportunities.

You are responsible to schedule make up with ProctorU. All unit exams makeups must be completed by the **last Monday** of the semester **before the final exam**.

5. FORMULAS YOU ARE EXPECTED TO KNOW.

This course assumes that you have a sound precalculus and calculus 1 background. The following is a summary of some important concepts used in solving calculus problems. The textbook provides a more complete review of these essential topics.

COMPLETING THE SQUARE $x^2 + ax + b = (x + \frac{a}{2})^2 + (b - (\frac{a}{2})^2)$

LAW OF EXPONENTS $a^{n+m} = a^n a^m$ $a^{n-m} = \frac{a^n}{a^m}$ $(a^m)^n = a^{mn}$

PROPERTIES OF logarithms $\log_b |xy| = \log_b |x| + \log_b |y|$

$$\log_b \left| \frac{x}{y} \right| = \log_b |x| - \log_b |y|$$

$$\log_b |a^m| = m \log_b |a|, \quad \log_b |x| = \frac{\ln |x|}{\ln b}$$

PARABOLA $y = f(x) = ax^2 + bx + c$

CIRCLES $(x - a)^2 + (y - b)^2 = r^2$

Vertex $x = -\frac{b}{2a}, y = f(-\frac{b}{2a})$

Center (a, b) , radius = r

Derivatives

$$\frac{d}{dx}(\sin x) =$$

$$\frac{d}{dx}(\csc x) =$$

$$\frac{d}{dx}(\cos x) =$$

$$\frac{d}{dx}(\sec x) =$$

$$\frac{d}{dx}(\tan x) =$$

$$\frac{d}{dx}(\cot x) =$$

$$\frac{d}{dx}(\arctan x) =$$

$$\frac{d}{dx}(a^x) =$$

$$\frac{d}{dx}(e^x) =$$

$$\frac{d}{dx}(\log_a x) =$$

$$\frac{d}{dx}(\ln x) =$$

Integrals

$$\int \frac{1}{x} dx =$$

$$\int e^x dx =$$

$$\int a^x dx =$$

$$\int \sin x \, dx = \quad \int \cos x \, dx = \quad \int \tan x \, dx = \quad \int \cot x \, dx =$$

$$\int \sec^2 x \, dx = \quad \int \csc^2 x \, dx = \quad \int \sec x \tan x \, dx = \quad \int \cot x \csc x \, dx =$$

$$\int \tan^2 x \, dx = \quad \int \cot^2 x \, dx = \quad \int \frac{1}{a^2 + x^2} \, dx =$$

Trig Identities

$$\sin^2 x + \cos^2 x = 1 \quad \tan^2 x + 1 = \sec^2 x \quad 1 + \cot^2 x = \csc^2 x$$

$$\sin^2 x = \quad \sin 2x =$$

$$\cos^2 x = \quad \cos 2x =$$

Know values of $\sin x$, $\cos x$, $\tan x$ at $x = 0, \frac{\pi}{6}, \frac{\pi}{4}, \frac{\pi}{3}, \frac{\pi}{2}$; $\arctan(a)$ at $a=0, 1, \sqrt{3}, 1/\sqrt{3}$.

(know the values of the other trig. functions at these angles and know the values of all trig functions at complementary and supplementary angles of the angles above)

Chain Rules $(f(g(x)))' = f'(g(x))g'(x)$

Derivative of an Inverse If $g = f^{-1}$, then $g'(x) =$