

Trigonometry Homework

General

Homework is a catch-all category for every non-exam assignment. It may include electronic homework, written homework, projects, quizzes, activities, discussions, etc. These instructions are mostly about the Edfinity homework.

Homework is worth 28% of your overall class grade. There are seven chapters covered in this course and the homework for each chapter is worth 4% of your overall course grade.

The grade for the lowest scoring assignment in each chapter will be dropped.

Homework Philosophy

Homework is the practice that helps refine and solidify the skills and understanding. You cannot fully understand the material by watching someone else do it, you need to practice it. The more you practice, the better you become.

There are many resources online that will provide answers and even work to trigonometry questions. It is tempting to go to the websites and copy down the answers and get 100% of the homework correct. When it comes test time, students look at the homework, see that they had 100% on each section, and think they know the material. They forget that it took them 12 attempts and they found a video on YouTube where someone worked out the exact problem and they just copied the answer down.

Don't take shortcuts. Take the extra time to do it correctly. Write down the original problem. Make notes when you struggle that identify the issue and how you solved it.

Students also think that if they can do every problem of homework, they know all of the material in the section. There are often concepts covered in the material that are not in the homework. Some concepts are too hard to put into homework that can be automatically graded. Some of the important concepts were left out of the homework in the process. You may want to look at the problems in the textbook as well as those online.

Online homework systems often check just the answer and not the work. They have no idea if you used the right methods or just asked your calculator for the answer. Mathematics is about the journey, not just about arriving at the destination. How you get your answer is arguably more important than getting an answer.

This is why I will ask you to submit your written work on paper. This is why work may be required for exams.

Homework Instructions

Homework will be delivered and assessed using the Edfinity system. Edfinity is a front-end to the WeBWork system sponsored by the Mathematical Association of America (MAA) and the National Science Foundation (NSF). You will access Edfinity through Canvas, do not go to Edfinity directly. Homework is a formative assessment. It is designed to help you learn the material, but the learning doesn't really occur within Edfinity. Edfinity is the place where you demonstrate and check your learning.

A typical workflow is that you look at the section before you come to class. In class, you hear the lecture, see the examples, and ask questions. After class, you work on the homework.

Homework is due the day after we finish the section (see the course calendar for a lecture schedule). If we finish a section on Monday, then the homework for that section is due on Tuesday. This pattern holds regardless of whether the day after is a holiday or not.

Any Edfinity homework completed more than 2 days before it is due, typically before we cover it in class, will receive a 5% bonus.

Homework will be accepted up to 7 days late, but there will be a 10% reduction in the points for late work.

Many of the problems allow for hints and practice of similar problems.

You may work ahead of the suggested schedule, but absolutely no late work will be accepted after May 9.

You get four (4) attempts per question on homework. The best score on any of the attempts is kept. Experience has shown that students just start guessing at some point rather than taking the time to learn what they are doing wrong. Multiple choice items only allow 2 choices.

You may attempt the entire assignment up to three (3) times. Students don't use this option very often as they are ready to move on after completing it just once. However, if you have completed the entire assignment and think you can do better, this allows you to retake the entire assignment (not individual questions). Your best score is kept on any of the attempts.

Written Work

Edfinity only accepts your final answer, it does not receive or consider any of the work that it took to get there. If you make a simple arithmetic or algebra mistake, Edfinity counts the problem wrong. If you have no clue what you are doing, but find the answer online or happen to guess lucky and get the right answer, you get full credit. Neither of these are the desired outcome for long term success.

The written work for your homework will be collected and examined by the instructor. The

instructor will not be looking at the homework to change the score from Edfinity, but to provide suggestions on ways that you can improve your understanding. The instructor is looking at things such as organization, clarity, completeness, originality, corrections, and understanding.

Here are the desired outcomes.

- Each section of homework begins on a separate page with the student's name, section number, and point total from Edfinity at the top. Each additional page should contain at least the section number at the top.
- Each problem is clearly identified. Problems do not need to be in the order they were presented in Edfinity, but it should be clear which problem you're working. If you do not work your problems in consecutive order, then you may want to identify the problems you can find at the top of each page.
- For simple problems, the original problem is copied down. Students have a tendency to just write the answer and that provides no help to you when you go back later to look at your notes to study because you do not know what the problem was.
- For story problems, a brief description of the problem is sufficient (example, "minimize the distance") and then write down the key aspects of the problem. If pictures are helpful, then they should be included in your notes.
- Only write in a single column and write top to bottom. Do not snake a problem around trying to minimize the amount of paper used. Trying to cram all of the work onto a single page leads to disorganization and makes it difficult to follow. Problems that start on the left side, work down and then continue on the right side of the page are hard to follow as well.
- It should be obvious what your final answer is. It does not have to be circled or boxed, especially if it is the last thing written on the problem. If it isn't the last thing, then highlight, circle, or box it. If you do a check of your answer, then clearly identify that you are checking the work (writing "check:" in front of it is a good indicator). If your answer is in the middle of the work because your work is all over the place, then see the previous item about writing in a single column.
- Draw a line through any mistakes, do not erase them. If there is room (remember you're only using one column), make the correction there. If you begin a problem over from scratch, you may use an X through the original problem (do not scribble it out) but you should still identify what went wrong. Students think that their work needs to be perfect. When you erase your mistakes, you forget what it was that caused them in the first place. By drawing lines through mistakes and making a note about what the problem was (arithmetic, algebra, trigonometry), you can start to see recurring patterns and then be on the lookout for those mistakes in the future. If you erase the mistakes, all of that is lost; students think "I got 100% on the homework so I understand this" and forget about the having to use all four attempts in Edfinity to get it right. When students turn in homework

with no mistakes and corrections, instructors suspect the student may just be copying work from an online homework site rather than doing the work themselves and that is bad for understanding.

- Indicate the eventual correctness of each problem with a checkmark or x-mark. For questions that you were unable to figure out, annotate what parts you are certain about, where your confidence wanes, where you are completely lost, etc. These are good questions to get help with and having an idea of where the problem lies can save the person helping you.
- When you encounter something tricky or new, or need an identity you don't have memorized, then write down an explanation. For example, if you use a half-angle identity for $\cos^2 x$ and didn't have it memorized, identify and write it down the formula (this is a good use for all that space you have available since you're only writing in one column). At some point, you will know it from memory and it won't be necessary to write it down anymore.
- When you have to get additional help in working a problem, identify where you got it from. Was it from the book? Was it from the instructor's notes in Canvas? Was it using OfficeHours or practicing a similar problem in Edfinity? Was it from Khan Academy or Delta Math? Did you use a homework resource site like Chegg? Was it a YouTube video? Getting help is not bad, but doing it for the majority of the problems can be an indication that you are not understanding the material or that you are lacking prerequisite skills. Listing when and where you struggle can help identify good resources and provide insight when additional help is needed.
- The work is original. Do not just copy solutions from manuals or websites. A major clue you've done this is when the work matches nothing we've done in class or in the book.

These guidelines are to help you be successful. In college, we tend to focus on the content and expect that students already know how to be successful. What we're seeing more of is that students were never taught how to study or do homework. When they come to the instructor for help, they have no useful work to show.

At the beginning of the semester, these suggestions may seem like a lot of extra work because they are foreign to you, especially if you are used to having answers come naturally. I expect that as the semester progresses, this will become easier and easier for you and the benefits of doing homework well, as opposed to just doing homework, will start to show through. This will also help when it comes time for the exams and work will be part of your grade.

Written Work Scoring

If you consider the guidelines above as the requirements, then each section of written homework will be scored according to the following holistic rubric.

Rating	Score	Description
Awesome	105%	Exceptional job that really impresses the teacher
Good	90%	Beyond what was required
Okay	75%	Satisfactory completion of requirements
Fair	60%	Almost there, but needs some development
Poor	45%	Minimal attempt at meeting requirements
None	0%	Did not participate or submission nowhere close to expectations

Each unit (exam) will have a corresponding written work assignment. This combines all of the homework from the unit into a single grade. The possible points for this assignment will make it so that is approximately the same as one section of homework and it will be included with the Edfinity homework assignments for that unit.

One homework score per unit will be dropped, so if you choose not to turn in the written work, it will not directly affect your grade. However, choosing to submit written work provides indirect benefits and leads to higher scores on the other homework assignments and on the exams.

Your written work for each section should be given to the instructor after you have completed the Edfinity work. You should not wait until the exam to give the instructor the homework or you lose the benefit of feedback.

You have up to 8 calendar days after we finish a section to complete the homework in Edfinity, so the written homework will be accepted up to two (2) weeks after we finish a section. Please don't take that long, though, as the idea is that you will use the feedback to improve before you take the test.

Homework submitted after the corresponding exam may result in a reduction of grade as it is hard to be awesome when it is late. Absolutely no late work will be accepted after May 9.