

MTH 111, Final Exam, Part 2, Fall 2020 Name _____

Instructions: For this portion of the exam, you may use the geometry formula sheet provided by your instructor, and a scientific calculator to find the solutions to the questions. You will then post the answers to those questions in Canvas under Exam #3 Part 2. You may not use other people or notes to complete the exam.

Academic Integrity Statement

I affirm that, I, _____ (student name), do attest that I alone am completing the problems on this test without receiving unauthorized assistance. I understand that violations of academic integrity may result in sanctions, up to and including expulsion from the college.

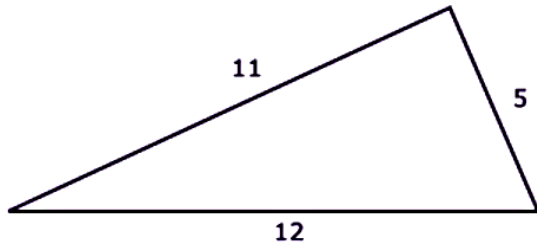
_____(Student Signature)

_____(Student ID number)

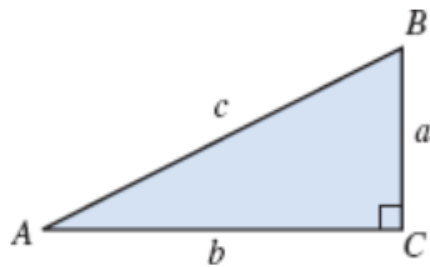
Attach a copy of your photo ID to the online submission (there is a question drop box for it). The ID must be a photo ID. A Driver's license, School ID (NOVA or otherwise), or a work ID are acceptable as long as it contains your full name and photo.

Every answer is worth 18 points. Round the lengths of sides and angles to one decimal place.

1. Find the missing angles for the triangle. Show your work using the Law of Cosines.



2. Given that $a = 12.0 \text{ km}$ and $c = 61 \text{ km}$, finding the missing sides and angles of the right triangle. Label everything on the triangle.



3. Given $A = 25.6^\circ$, $b = 153 \text{ cm}$, $a = 137.5 \text{ cm}$ find the length of the missing side and missing angles using the Law of Sines. Be sure to check if there is one triangle or two (or none). If there are two triangles, find the missing lengths and angles of both.

