

## Math 4300 - Test 2 Study Guide

Test 2 covers HW 3, HW 4, HW 5.

Bring a calculator that isn't your phone to the exam.

### Computations:

- Vector equation of a line in the Euclidean plane.  
HW 3 – problem 1.
- Determine if  $A = B = C$ .  
HW #4 – problems 1, 2, 3.
- Draw an accurate picture of line segments and rays.  
HW #5 – problems 1, 2, 3.
- Find a  $C$  on a ray that gives a line segment of a certain length.  
HW #5 – problems 4, 5.

### Proofs:

There will be at least one proof directly from the homework.

- Proofs involving dot product and norm and vectors.  
HW #3 – problems 2, 3.
- Proofs about  $A = B = C$ .  
HW #4 – problems 4, 5, 6, 7, 8, 9.
- Proofs about line segments, rays, and lines.  
HW #5 – problems 6, 7, 8, 9(a).
- **Proofs NOT on the exam.**  
HW #4 – problem 10.  
HW #5 – problems 9(b), 10, 11.