1106 DIS 208 Week 1 (#2)

Discussion Outline

- Assessment next week
- Recitation Worksheet 2

Benjamin Thompson
bgt37@cornell.edu
Office hours: 3-5 Thu.

Assessment next week

- Homework 1   - due Monday (via Gradescope, Jan 27th)
- Reading Quiz 3 - due Monday (via Canvas, Jan 27th)
- Reading Quiz 4 - due Wednesday (via Canvas, Jan 29th).
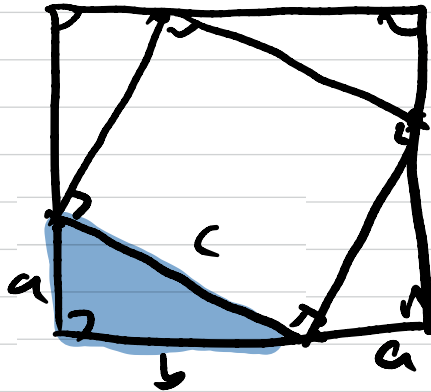

- Can always ask questions on Piazza

- Other resources: Stack Exchange.

Extra Exercise:

Prove Pythagoras' Thm.   Method 1:

One possible way:

Area = area of smaller square

Consider

$+$

$4 \times$ area of triangle

$$= c^2 + 4 \cdot \frac{1}{2} ab$$
$$= c^2 + 2ab$$
$$=$$

Method 1 area = Method 2 area.

Method 2:
area
$$= (a+b)^2$$

$$(a+b)^2 = (a+b)(a+b)$$
$$= a(a+b) + b(a+b)$$
$$= a^2 + ab + ba + b^2$$
$$= a^2 + 2ab + b^2.$$

$$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$$

$$1$$
$$1 \quad 2 \quad 1$$
$$1 \quad 3 \quad 3 \quad 1$$
$$1 \quad 4 \quad 6 \quad 4 \quad 1$$
$$1 \quad 5 \quad 10 \quad 10 \quad 5 \quad 1$$

$$(a+b)^5$$

$$= \quad a^5 + 5a^4b + 10 \ldots$$

Extra Questions.

In the given triangle, thinking of the sides as vectors, what is the formula for the vector going to the ==centroid?==