Attendance for Dr. Z.'s MathHistory for Lecture 5 (due no later than 10 minutes after class)

NAME: (print!) Kishan Patel

Email to DrZlinear@gmail.com right after class

Subject:p5

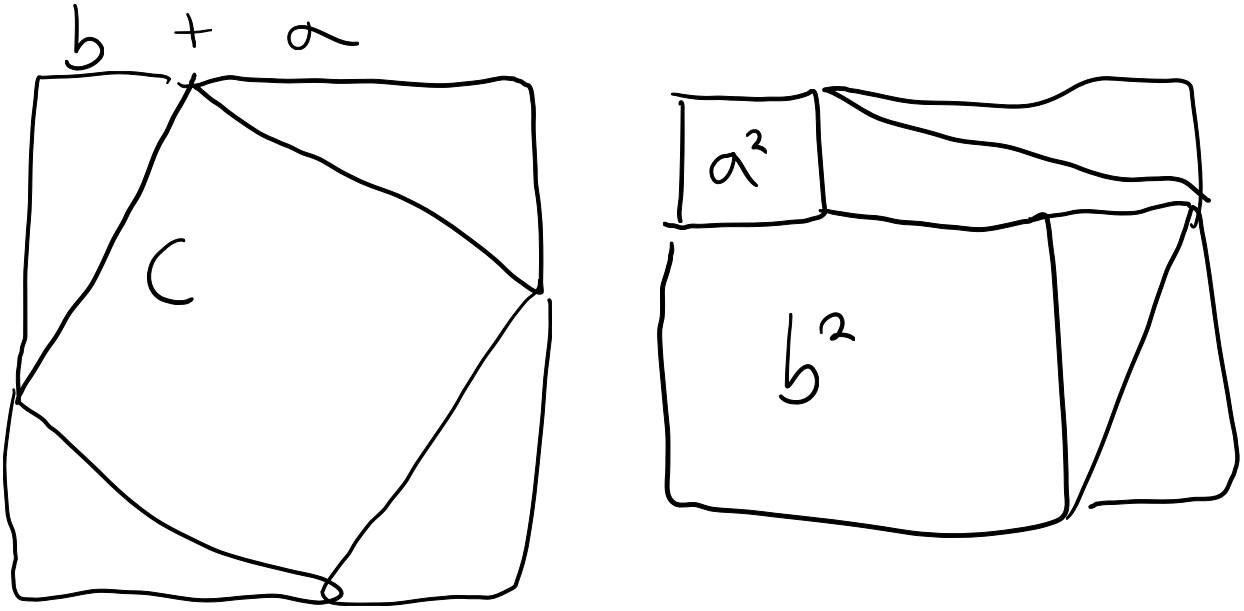
with an attachment p5FirstLast.pdf

Part I: List all the "attendance questions" during the lecture, followed by your answers.

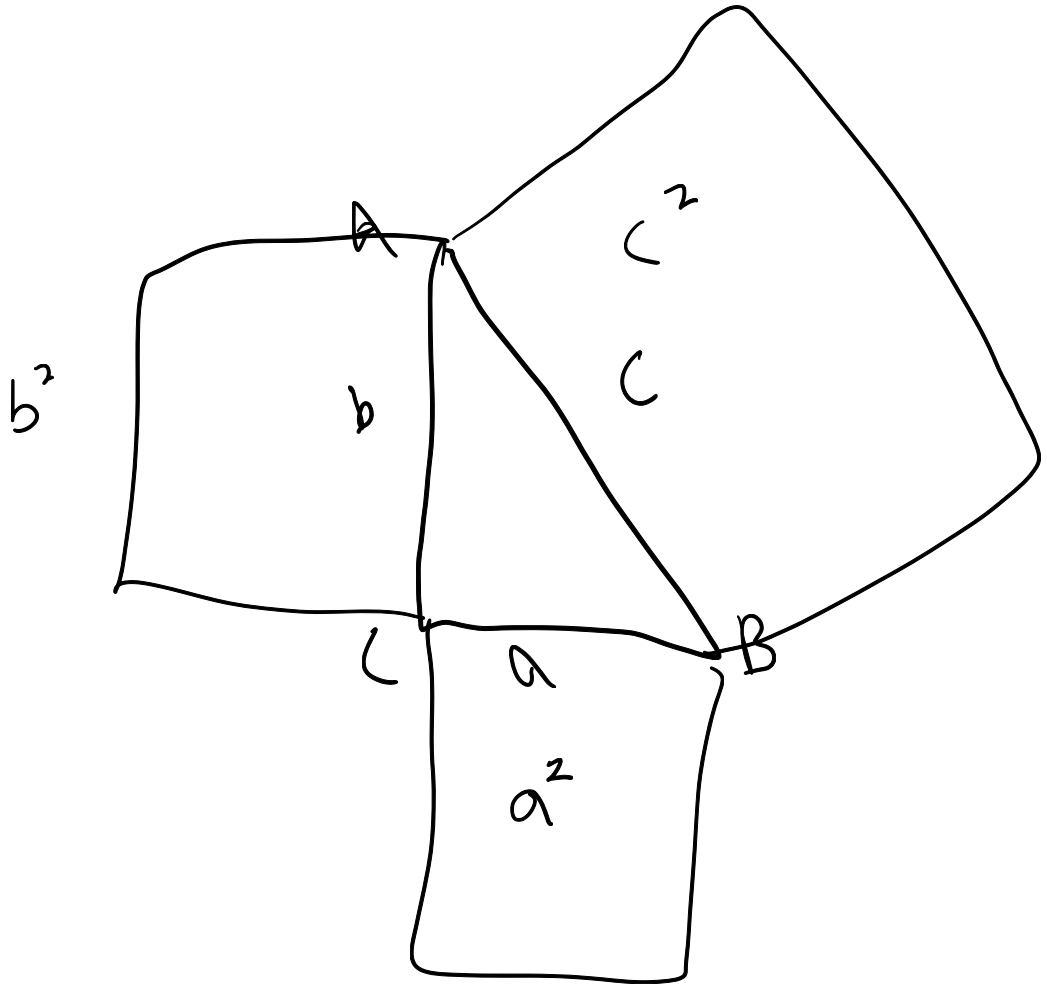
Part II:

1. State the Pythagorean Theorem and prove it in **two ways**

(I) Using the decomposition of an $(a+b)\times(a+b)$ square into an $a\times a$ square, a $b\times b$ square, and four right-angled triangles with sides a, b and hypotheneus c, and comparing it with a decomposition consisting of a $c\times c$ square and four right-angled triangles with sides a, b and hypotheneus c,



(II) Using similar triangles, by taking a right-angled triangle ABC with such that $|AC| = b$ and $|BC| = a$, and $|AB| = c$, such that AB is horizontal, calling the projection of C to AB, C', and considering the three triangles ABC, ACC' and BCC'.


A
c^2
c
b^2
b
C
a
B
a^2

2. Find the first three smallest *primitive* Pythagorean triples.

$3^2+4^2=5^2$

$5^2+12^2=13^2$

$8^2+15^2=17^2$

1) Write a joke on the pythagorean theorum.

What's pythagoras's favorite instrument.

The triangle