

Attendance Quiz 5

PART I:

① look up a joke based on the Pythagorean Theorem.

• Why did Pythagoras like math so much?

→ Just Cos.

② Prove Pythagorean Triples

for m, n integers $a = m^2 - n^2$ $b = 2mn$

• Show that $a^2 + b^2 = c^2$ where $c^2 = m^2 + n^2$

$$a^2 + b^2 = c^2$$

$$(m^2 - n^2)^2 + (2mn)^2 = m^2 + n^2$$

$$m^4 - 2m^2n^2 + n^4 + 4m^2n^2 = m^2 + n^2$$

$$2m^2n^2 + n^4$$

$$(m^2 - n^2)(m^2 - n^2)$$

$$m^4 - 2m^2n^2 + n^4$$

③ RAN OUT OF TIME ;)