Real Quiz # 3 for Dr. Z.'s MathHistory

NAME: (print!) _____

Email DrZlinear@gmail.com as soon as I tell you (around 3:15pm)

Subject: q3

with an attachment called

q3FirstLast.pdf (e.g. q3JohnLennon.pdf)

1. (3 points) Describe the Dichotomy Paradox (aka half-way paradox).

2. (3 points) Prove that there are infinitely many triples of positive integers a, b, c such that

$$a^2 + b^2 = c^2 \quad .$$

3. (4 points) Using $a = 2mn, b = m^2 - n^2, c = m^2 + n^2$, find as many Pathagorean triples as you can with $a = 100$. Which ones are **primitive**?