

Attendance Quiz # 1 for Dr. Z.'s MathHistory for Lecture 1 (due no later than 10 minutes after class) NAME: (print!)

E-MAIL ADDRESS: (print!) snc102@rutgers.edu

Email to DrZlinear@gmail.com right after class

Subject:p1

with an attachment p1FirstLast.pdf

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

Question 1: According to the internet, who is the most famous mathematician in history? Answer: Euclid

Question 2: Where did Dennis DeTurck get his undergraduate degree? Answer: Drexel University

Question 3: Where did the **S** in RSA get his PhD? Answer: Weizmann Institute

Part II:

1. (a) Use the greedy algorithm to express $\frac{7}{12}$ as an Egyptian fraction. Use this to equally divide 7 pizzas among 12 people.

Let $x = 7/12$ so $1/x = 12/7$. The ceiling of $12/7$ is 2 so the first portion is $\frac{1}{2}$.

So Egyptian Fraction $(7/12) = \frac{1}{2} + \text{Egyptian Fraction } (7/12 - \frac{1}{2}) = \frac{1}{2} + \text{Egyptian Fraction } (1/12)$

So the Egyptian Fraction of $7/12 = \frac{1}{2} + 1/12$

(b) Note that a better way to express $\frac{7}{12}$ as an Egyptian fraction is

$$\frac{7}{12} = \frac{1}{3} + \frac{1}{4}$$

Use this better way to equally divide 7 pizzas among 12 people. Why is it better?

2. Find the two smallest positive integers n , that have the property that

- If you divide n by 3 you get remainder 1 .
- If you divide n by 5 you get remainder 2 .