

## Pi Day Assembly

N1: Welcome to this Numeracy Assembly where we will present a short story about how Mathematics can resolve interesting problems.

N2: Thought we'd be talking about Pi, as today is March 14th. 3.14 are the first 3 digits of Pi.

N1: Our story concerns a wise travelling mathematician and his companions travelling together to Baghdad.

As they approached the ruins of a small village called Sippar, they met a traveller.

SN: My name is Saleem Naser, I am one of the richest merchants in Baghdad. On my way back from Basra I was attacked by a band of Persian desert nomads. I only escaped by hiding among the bodies of my perished slaves.

N1: When the tale of woe was finished they asked

SN: Do you by any chance have anything to eat as I am dying of hunger.

WM: I have five loaves.

C: And I have three.

SN: Very well. I beg you to share these loaves with me. I promise to pay for the bread with eight pieces of gold when we get to Baghdad.

N1: So they did. When they arrived they encountered a resplendent entourage headed by a vizier. Seeing the Sheikh they exclaimed

V: What happened to you my friend? How is it that you .....in rags in the company of these strangers?

N1: The poor Sheikh related the whole story in detail.

V: I will pay at once the 8 gold coins and take the Sheikh to my Palace.

SN: I pay you (WM) 5 gold pieces for your 5 loaves and you ( C ) 3 gold pieces for yours.  
[Pointing]

WM: Forgive me O Sheikh. Such a division, although apparently simple, is not mathematically correct. Since I gave 5 loaves I should receive 7 gold coins, and my friend who gave 3 loaves should receive only one gold coin. [Said slowly] [Powerpoint slide]

V: In the name of Muhammed, how can you justify such an absurd division?

WM: Each loaf is divided into 3 pieces so we could each eat 1 piece. My 5 loaves made 15 pieces, my friend's 3 loaves made 9 pieces. [Powerpoint slides 5 loaves, 3 loaves, 8 loaves]

C: So a total of 24.

WM: How much each?

C: 24 pieces of bread divided by 3 = 8 pieces each.

WM: So the Sheikh had  $15-8 = 7$  my pieces and  $9-8=1$  of yours. [Powerpoint slide]

C: Your answer is clearly logical, perfect and irrefutable.

V: Mathematics is unarguable!

WM: However, in the eyes of the Almighty it is not fair. We shall share the coins equally.

N1: And so the travellers went on their way.

N2: Very interesting, but so is Pi.

N3: Tell me more....

N2: It is irrational. [Powerpoint slide]

N3: What?

N2: Can't be written as a fraction using whole numbers.

N3:  $22/7$  is close though!

N2: .....and transcendental [Powerpoint slide]

N3: Aaagh! Not a solution to a polynomial with rational coefficients.

N2: Computers have found Pi to more than 22 trillion digits.

N3: So in its endless stream of digits, the digits 0 to 9 form every combination, so in there somewhere is your phone number, pin number, number password, code etc....

N2: Wow

N3: Some Pi facts

N2: And a story

All: Thank you for listening.