

Jeremy Dombro

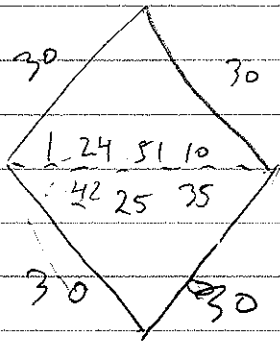
Virginia Doran

Kristin DiGilio

Charlie Limjoco

Kevin Mausur

Problem
2



$$1 + \frac{24}{60} + \frac{51}{60^2} + \frac{10}{60^3}$$

$$30 \cdot \left(1 + \frac{24}{60} + \frac{51}{60^2} + \frac{10}{60^3} \right)$$

$$= 42.4264069 = 42 + \frac{25}{60} + \frac{35}{60^2}$$

$$= 42.4263889$$

difference 000018

The line of numbers above the diagonal is $1 + \frac{24}{60} + \frac{51}{60^2} + \frac{10}{60^3}$ which is equal to $\sqrt{2}$ we multiply this by 30 to get the distance of the line and get 42.4264069 we then can take the bottom number and we get $42 + \frac{25}{60} + \frac{35}{60^2}$ which equals 42.4263889 so the Babylonians only had a difference of 000018 which is amazing how close they got to the real number!