



Knights of Pi Math Tournament – Dec. 12, 2015
Mental Math 5th/6th

Person 1

1	Abigail has 4 pens, Benny has 9 pens, and Christopher has x pens. If the average number of pens per person is 7, what is x ?
2	What is the sum of the first 5 odd integers?
3	Find the difference between 216 and 328.
4	If a triangle has side lengths 7 and 10, what is the sum of the highest and lowest possible integer values for my third side?
5	What is 5 squared plus 4 squared plus 3 squared?

Person 2

1	Calculate the sum of all of the positive integer factors of 6.
2	What is the area of a circle that has a radius length equal to the smallest positive prime?
3	What is the area of a right triangle with side lengths, 6, 8, and 10?
4	How many distinct positive factors does 24 have?
5	What is the volume of a rectangular prism with dimensions 3 by 4 by 5?

Person 3

1	Evaluate 19 times 21.
2	How many ways are there to arrange the letters in the word KNIGHT, K-N-I-G-H-T?
3	If a equals $3b$ and b equals $2c$, what is a in terms of c ?
4	Find the smallest cube number greater than 45.
5	How many positive integer factors does 12 have?

Person 4

1	Evaluate: $61 + 143$
2	Find the units digit of 4 to the power of 2015
3	If x is equal to 5, what is x squared plus ten x plus twenty five?
4	What is the sum of all the integers from 1 to 10, inclusive?
5	What is 4 factorial divided by 6?