



Knights of Pi Math Tournament – Mar. 17, 2018  
Block Math 7th/8th

1	Calculate 6 times 8 times 9.
2	In how many distinct ways can you arrange the letters in the word PIZZA?
3	What is the sum of the mean and mode of the numbers 2, 3, 1, 4, 0, 2?
4	In a farm, there are horses and ducks. A horse has 4 legs and a duck has 2 legs. There are a total of 18 heads and 64 legs. How many horses are there?
5	How many prime numbers are less than or equal to 101?
6	Which of the following numbers is the greatest: $2^{23}$ , $3^{19}$ , $5^{14}$ , $7^{10}$ ?
7	What is 50% of 80% of 90?
8	The top of one tree is 10 feet higher than the top of another tree. The heights of the two trees are in the ratio 2:3. In feet, how tall is the taller tree?
9	How many 3 digit integers are divisible by both 15 and 17?
10	Susan had 50 dollars to spend at the carnival. She spent 12 dollars on food, 3 dollars on prizes and one fifth of the remaining money on rides. How many dollars did she have left to spend?
11	X is the greatest common factor of 51 and 99. What is the least common multiple of X and 31?
12	How many minutes are in 4 and a quarter days?
13	The length of a rectangle is increased by 20% and the width is decreased by 10%. What is the absolute value percentage difference between the new and old value of the area?
14	What is 2018 base 9 expressed in base 10?
15	What is the units digit of $7^{197}$ ?