



Knights of Pi Math Tournament – Mar. 17,
2018

Algebra & Operations 5th/6th

1	Evaluate $334 + 847 + 119$.
2	Andy and Michael have 20 dollars in total. If Andy gives Michael 3 dollars, then Andy has 3 times as much as Michael. How much does Andy have originally?
3	Evaluate $3 + 5 + 7 + 9 + 11 + \dots + 47 + 49$.
4	A gallon of paint is used to paint a room. Two-thirds of the paint is used on the first day. On the second day, two-fifths of the remaining paint is used. What fraction of the original amount of paint is available to use on the third day?
5	Find all zeros of $y = x^2 + 4x - 77$.
6	If $f(x) = \sqrt{x + 3}$ and $g(x) = x^3 + 1$, what is $f(g(2))$ in its simplest form?
7	I can read 20 pages a day if I read slowly, and I can read 30 pages a day if I read quickly. If I need to finish 220 pages in 8 days, what is the minimum number of days that I need to read quickly?
8	How many factors does 180 have?
9	Simplify $ 4 - 3 + x $ if $x < -7$.
10	Order from the least to the greatest: 25^{100} , 7^{200} , 3^{300} , 4^{200} , 2^{600} .