

MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 1 - OCTOBER 2016
ROUND 4 ALG 1: FRACTIONS & MIXED NUMBERS

ANSWERS

A) _____

B) _____

C) _____

A) A man takes a bus trip covering 25 miles in 30 minutes. He then travels 3020 miles by plane in 3 hours. Compute his average rate (in miles per hour) for the entire trip. If necessary, round your answer to the nearest integer.

B) A carpenter and his assistant are building a large shed. They work together for 7 days and then the carpenter leaves the two-man team and the assistant finishes the job. If 70% of the job was completed before the carpenter left and the carpenter works twice as fast as the assistant, how many more days will it take the assistant to finish the job?

C) Compute the value of $x = 1 + \frac{2}{3 + \frac{4}{1 + \frac{2}{3 + \frac{4}{1 + \dots}}}}$.