

MASSACHUSETTS MATHEMATICS LEAGUE
FEBRUARY 2004
ROUND 4: WORD PROBLEMS

ANSWERS

A) _____

B) _____

C) _____

A) What is the larger of the two numbers whose sum is ten, if the sum of their reciprocals is $8/15$.

B) An elevator went from the bottom of a tower to the top at a speed of 4 meters/second. It remained at the top for ninety seconds, and then returned to the bottom at a speed of 5 m/sec. If the total trip took 45 minutes, how high is the tower?

C) The sum of the squares of three ^{CONSECUTIVE} ~~positive~~ odd integers is 967 more than the sum of the squares of the two even integers between them. Calculate the sum of the five consecutive integers.