

**MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 1 - OCTOBER 2007
ROUND 6 ALG 1: EVALUATIONS**

ANSWERS

A) _____

B) _____

C) (_____ , _____)

A) $22/7$ and 3.14 are often used as approximations of π .

When $22/7$ is approximated as 3.14 , the error is $\frac{1}{n}$, where n is a positive integer?

Compute n .

B) Given: $\frac{3A+5B}{4B-2A} = 2$ Compute: $\frac{2A-3B}{A}$

C) An ad cost 25¢ per line to run on weekdays, 20¢ per line on Saturdays and 50¢ on Sundays. Of course, since you are competing in an MML meet today, it is the first Thursday of the month. The cost for running a one line ad for 30 days, starting on the first of a month will vary slightly depending on what day of the week the first day of the month falls. Determine the ordered pair of integers (A, B) , where A denotes the date of the first Thursday of the month in which the cost of running the ad is the maximum B (in cents).