

**MASSACHUSETTS MATHEMATICS LEAGUE  
CONTEST 5 - FEBRUARY 2014  
ROUND 4 ALG 1: WORD PROBLEMS**

**ANSWERS**

A) \_\_\_\_\_ minutes

B) \_\_\_\_\_

C) ( \_\_\_\_\_ , \_\_\_\_\_ )

A) Bonnie and Clyde can pull off a job together in 6 minutes. Thanks to Title 9, Bonnie can do three times as much of the job as Clyde can in any given amount of time. How long (in minutes) will it take Bonnie to do the job alone?

B) A true story.

Not too long ago, my teenage son's age equaled his shoe size.

Fortunately, his growth slowed down. Now, 26 years later, he is 6' 5" tall, but his shoe size is only 1 size larger and only equals  $\frac{3}{8}$  of his current age. Compute his current shoe size.

C) Last March, the stats for RightStuff High School were as follows:

The unique mode of their 7 round scores was 18. This score occurred twice.

The median of their 7 round scores was 22.

Their lowest round score (also unique) was in the team round.

Let  $M$  and  $m$  denote our maximum and minimum possible score for the meet.

Compute  $(M, m)$ .

A Reminder (as if you didn't already know):

MML competition consists of 7 rounds, 6 individual and a team round.

There are 3 questions in each individual round

In individual rounds, 5 mathletes compete.

In the team round, all 10 mathletes collaborate.

The maximum score in any individual round is 30 points – 2 pts. per correct answer

The maximum score in the team round is 18 points – 3 pts. per correct answer.