

**MASSACHUSETTS MATHEMATICS LEAGUE**  
**CONTEST 1 - OCTOBER 2015**  
**ROUND 6 ALG 1: EVALUATIONS**

**ANSWERS**

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

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

C) \_\_\_\_\_

A) A uniform 3 foot wide walkway surrounds a rectangular garden with integer dimensions  $W$  and  $L$ , where  $W > L$ . Compute the number of distinct ordered pairs  $(W, L)$  for which the area of the walkway is 210 square feet.

B) Determine how many factors of  $10^4 - 5^4$  fit in at least one of these categories:

- multiple of 5
- nonzero power of 5.

C) Compute  $(1204)_8 + (245)_6 - (444)_5$  and express your answer in base 10.