

**MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 6 - MARCH 2010
ROUND 5 PLANE GEOMETRY: ANYTHING**

ANSWERS

A) _____

B) _____ : _____

C) _____

******* NO CALCULATORS IN THIS ROUND *******

A) Ten coplanar lines determine N points of intersection.
Compute the maximum value of N .

B) An equilateral triangle and a regular hexagon have equal perimeters.
What is the ratio of the area of the triangle to the hexagon?

C) Given: \overrightarrow{PA} is tangent to circle O ,
 $PA = 14$,
 $CB = 3PB$ and $EP = 2\sqrt{PB}$

Compute the area of circle O .

