MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 5 – FEBRUARY 2008
ROUND 5 GEOMETRY: CIRCLES

ANSWERS

A) _____ ft/min

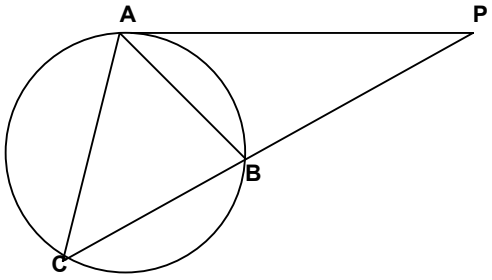
B) _____

C) _____

******* NO CALCULATORS ON THIS ROUND *******

A) A wheel of radius 6 inches rotates at 2 revolutions per second. In terms of π, how fast does a point on the circumference turn in <u>feet per minute</u>?

B) $\overline{PA}$ is tangent to circle O at A, $PA = 5x - 3$, $PB = 3x - 1$, $BC = 7x - 11$ and $AC = 2x + 3$
<u>Compute</u> the perimeter of ΔAPC.



C) In circle O, perpendicular chords $\overline{AB}$ and $\overline{CD}$ intersect at point P.
$AP = 12$, $PB = 28$ and $CP = 14$. <u>Compute</u> $AD - PO$.