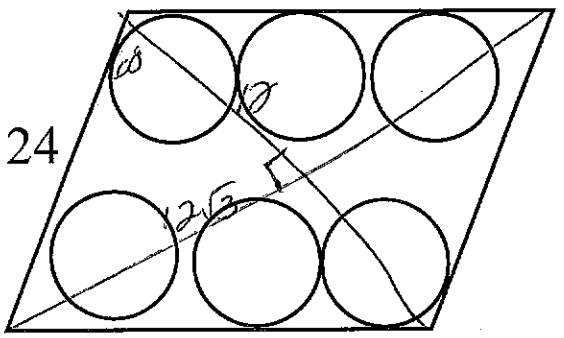
Find the probability that a point randomly picked in this rhombus with a 120 degree angle will land on one of the 6 congruent circles with radius equal to 4cm.



$A_{\odot} = \pi(4)^2$
$= 16\pi$
$\times 6$ circles
$96\pi \text{ cm}^2$

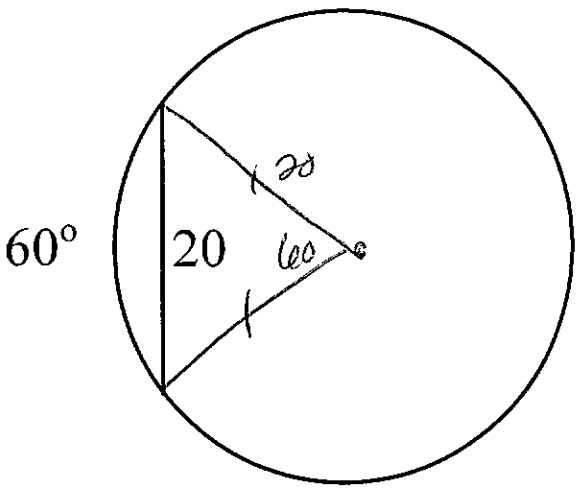
$A_{Rhom} = \frac{1}{2}(24)(24\sqrt{3})$
$= 288\sqrt{3}$

$\frac{96\pi}{288\sqrt{3}} \quad 3\sqrt{3} \quad \frac{\pi \cdot \sqrt{3}}{\sqrt{3}}$

$\frac{\sqrt{3}\pi}{9} \approx .604$

60.4%

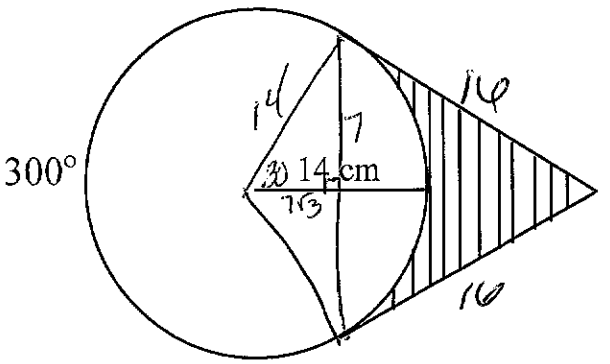
Find the area of this circle.



$A = \pi(20)^2$
$= 400\pi \text{ u}^2$

Find the area of the striped region.

?



$A_{\Delta} = \frac{1}{2}(14)(16)$

$= 112$

$A_{2\Delta s} = 224$

$A_{sect} = \frac{60}{360} \cdot \pi (14)^2$

$= \frac{1}{6} \cdot \pi \cdot 196$

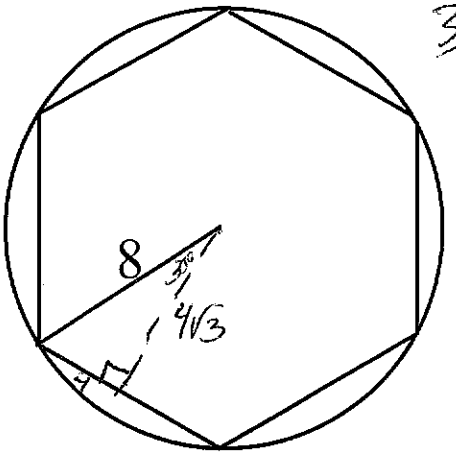
$= \frac{98\pi}{3}$

$A_{striped} = \left(224 - \frac{98\pi}{3}\right) cm^2$ or $\left(\frac{672 - 98\pi}{3}\right) cm^2$

If a triangle with area 20 shares a base with triangle with area 140, what is the ratio of their heights?

$\frac{20}{140} = \frac{2}{14} = \frac{1}{7}$

Find the area between the circle and the hexagon.



$\frac{360}{6} = 60$

$A_{\odot} = \pi(8)^2$
$= 64\pi$

$A_{hex} = \frac{1}{2}(4\sqrt{3})(8)(6)$
$= 96\sqrt{3}$

$A_{between} = (64\pi - 96\sqrt{3})u^2$