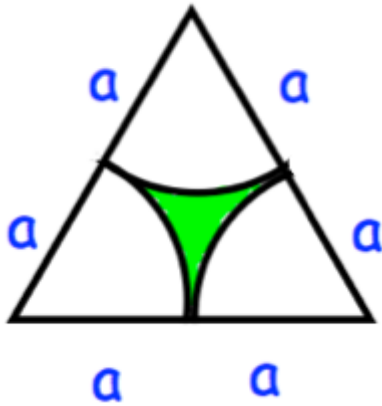


December 8th



Each sector is $\frac{1}{6}$ of a circle

Therefore white area = area of semi-circle radius $a = \frac{\pi a^2}{2}$

Area of triangle = $\frac{1}{2} \times 2a \times 2a \times \sin 60^\circ = a^2\sqrt{3}$

Therefore, shaded area = $a^2(\sqrt{3} - \frac{\pi}{2})$