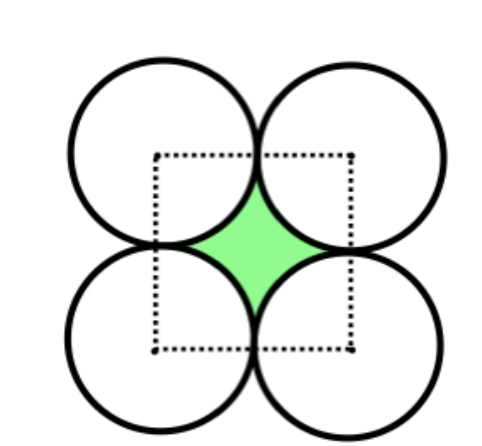


January 20<sup>th</sup>

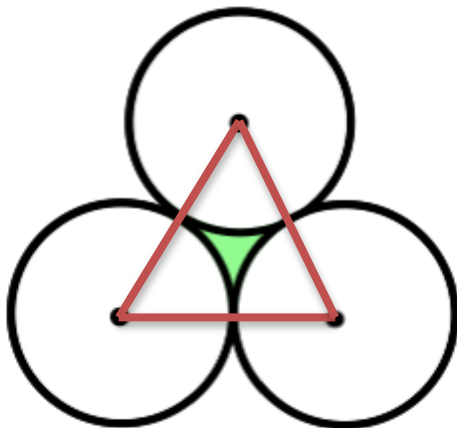


Area of the square =  $2 \times 2 = 4 \text{ cm}^2$

The 4 quarter circles in the square make one circle

with area  $\pi \times 1^2 = \pi \text{ cm}^2$

So shaded area =  $4 - \pi \text{ cm}^2$



The equilateral triangle has side length 2cm

So its area =  $\frac{1}{2} \times 2 \times 2 \sin 60 = \sqrt{3} \text{ cm}^2$

The three sectors all have angle  $60^\circ$ ,

so together make a semi-circle, area  $\frac{1}{2} \pi \text{ cm}^2$

Therefore shaded area =  $\sqrt{3} - \frac{1}{2} \pi \text{ cm}^2$