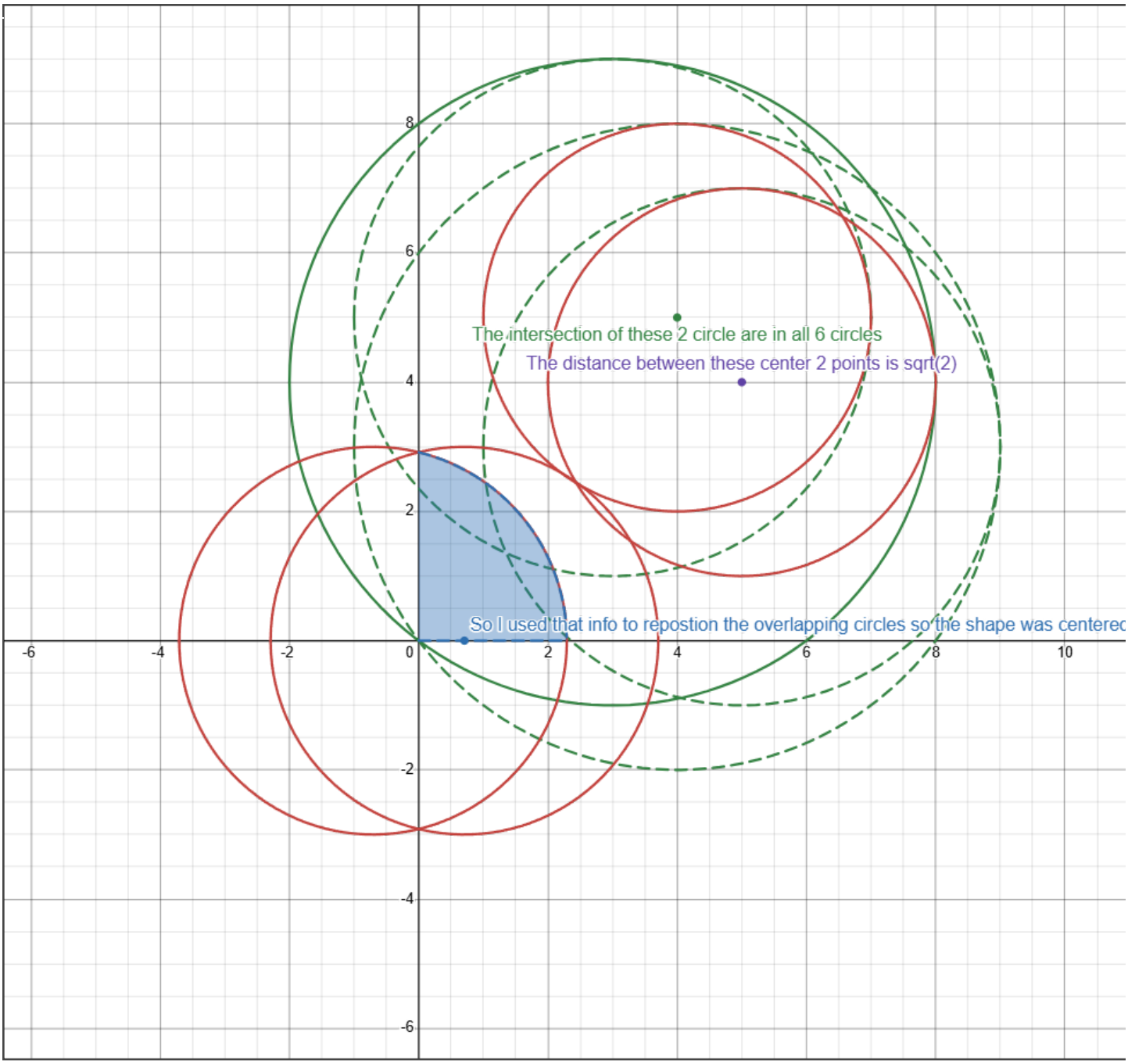

1 All possible orders of a b c:

2 $[345,354,435,453,543,534]$

6 element list

3 $(x-3)^2+(y-4)^2=5^2$

4 $(x-3)^2+(y-5)^2=4^2$

5 $(x-4)^2+(y-3)^2=5^2$

6 $(x-5)^2+(y-3)^2=4^2$

7 $(x-4)^2+(y-5)^2=3^2$

8 $(x-5)^2+(y-4)^2=3^2$

9 $(4,5)$

10 $(5,4)$

11 $\left(x+\frac{\sqrt{2}}{2}\right)^2+(y)^2=3^2$

12 $\left(x-\frac{\sqrt{2}}{2}\right)^2+(y)^2=3^2$

13 $\left(\frac{\sqrt{2}}{2},0\right)$

$= (0.70710678,0)$

14 $\left(-\frac{\sqrt{2}}{2},0\right)$

$= (-0.70710678,0)$

15 $0<y<\sqrt{3^2-\left(x+\frac{\sqrt{2}}{2}\right)^2}\ \{x>0\}$

16 Then We integrate to find the area of this section and multiply by 4 with the following integral

17 $4\int_0^{3-\frac{\sqrt{2}}{2}}\sqrt{3^2-\left(x+\frac{\sqrt{2}}{2}\right)^2}\,dx$

$= 19.8682880097$

18 or

19 $4\int_{\frac{\sqrt{2}}{2}}^{3}\sqrt{3^2-x^2}\,dx$

$= 19.8682880097$