## Regions bounded by the Archimedean spiral $r=\theta$



The turquoise region is bounded by the spiral for $\theta$ between $\mathbf{0}$ and $2 \pi$, the yellow region is bounded by two pieces of the spiral for $\theta$ between $2 \pi$ and $4 \pi$, and the pink region is bounded by two pieces of the spiral for $\theta$ between $4 \pi$ and $6 \pi$.

