Name: _____ Mark: _____

Mini-math AP Calculus BC: Friday, March 24, 2022 (8 minutes)

1. (2 points) Write down (but do not evaluate) an integral which represents the area inside $r = 2 - \cos\theta$ for $0 \leq \theta \leq \pi$.

2. (2 points) Write down (but do not evaluate) an integral which represents the area inside $r_1 = 2\sin\theta$ and outside $r_2 = 2\sqrt{3} - 2\sin\theta$.

3. (2 points) Write down (but do not evaluate) an integral which represents the area outside $r_1 = 2\sin\theta$ and inside $r_2 = 2\sqrt{3} - 2\sin\theta$.