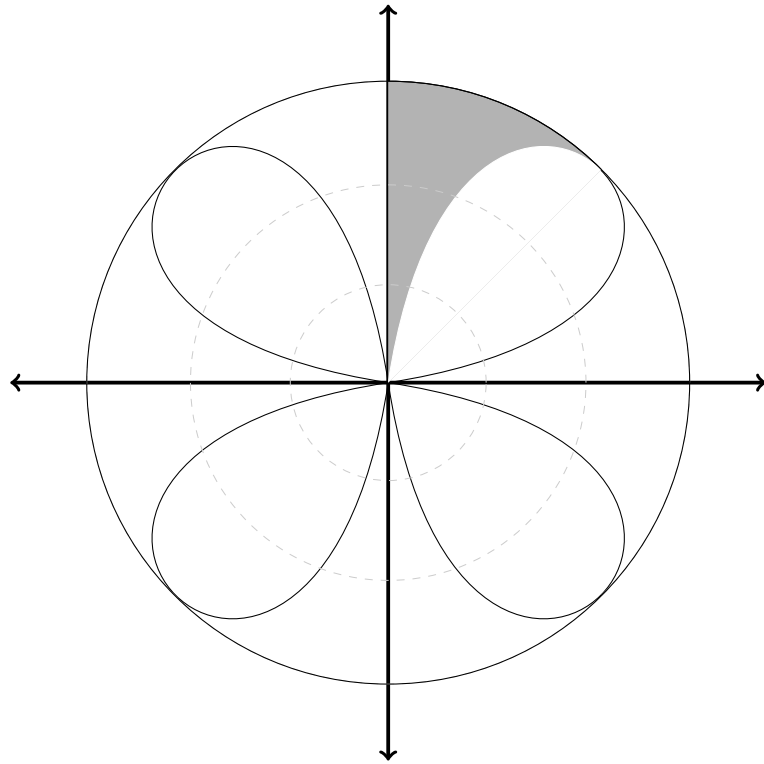


1. The graphs of  $r = 3$  and  $r = 3 \sin(2\theta)$  are shown below.



Set up an integral to find the area of the shaded region (you don't need to solve it)

Answer: \_\_\_\_\_

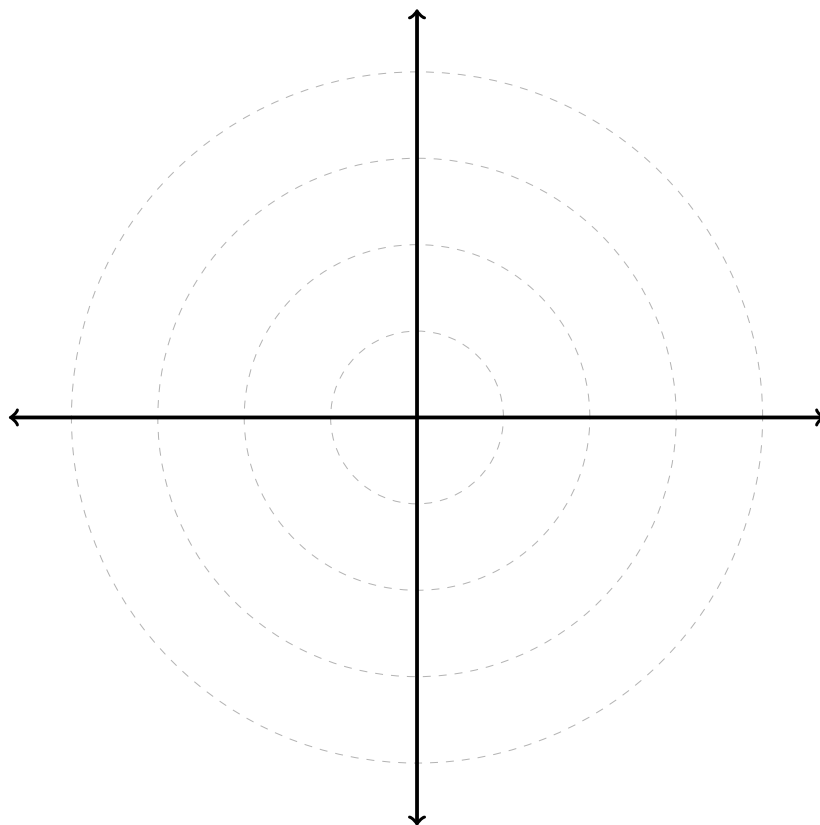
2. a) Find all points of intersection of the curves, in polar coordinates

$$r = 4 \cos(3\theta) \text{ and}$$

$$r = 2$$

Answer: \_\_\_\_\_

b) Graph the curves on the axes below



3. a) What was your favorite part of this class?

b) What was your least favorite part of this class?