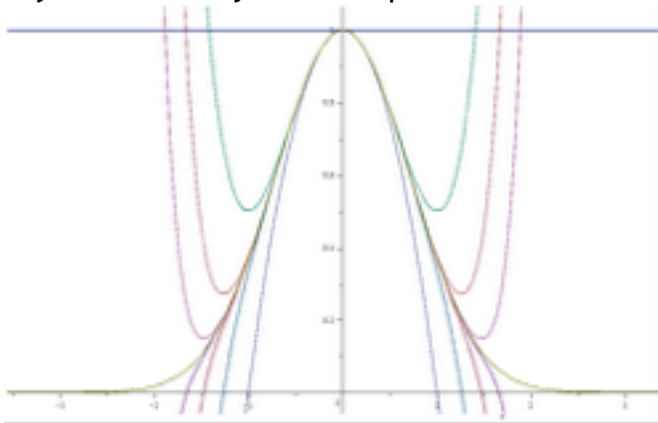


Problem 1:

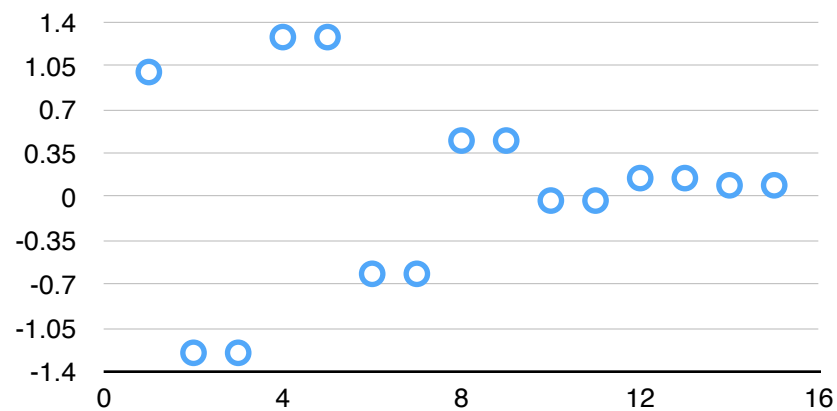
Part A

Taylor Series of $y=e^{-x^2}$ up to order 15:



Part B

i	$P_i(x)$
1	1
2	-1.25
3	-1.25
4	1.28
5	1.28
6	-0.617
7	-0.617
8	0.451
9	0.451
10	-0.0299
11	-0.0299
12	0.150
13	0.150
14	0.0924
15	0.0924



$P_i(x)$ approaches 0.1054

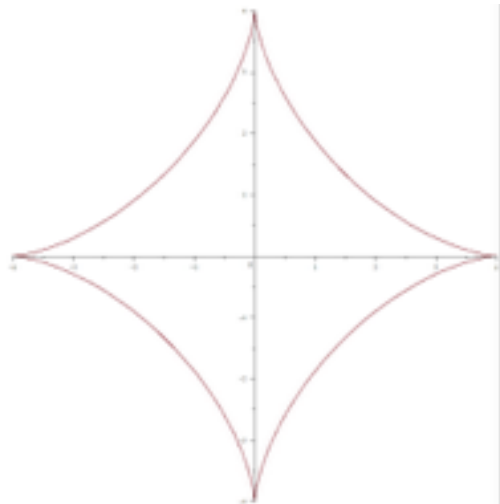
Problem 2:

Parametric curve of:

$$x = 3 \cos t + \cos(3t)$$

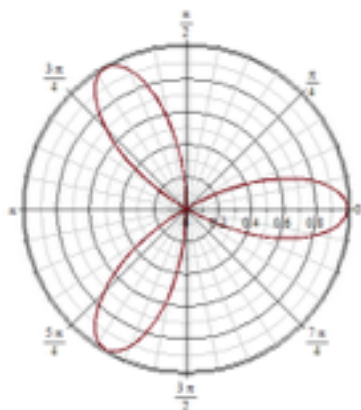
$$y = 3 \sin t - \sin(3t)$$

$$0 \leq t \leq 2\pi$$

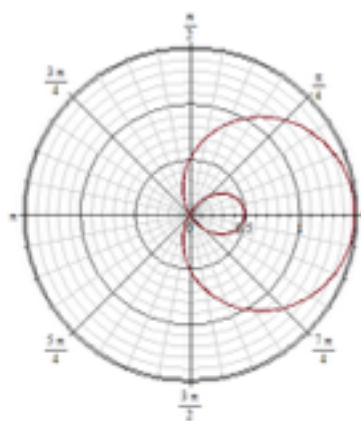


Problem Three:

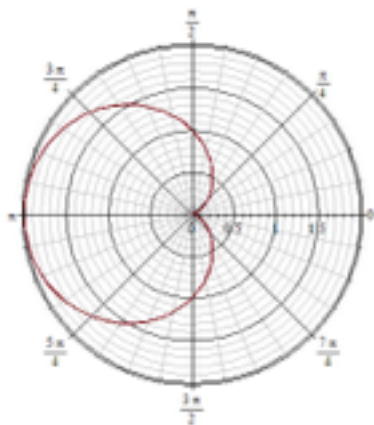
1. $r = \cos(3\theta)$



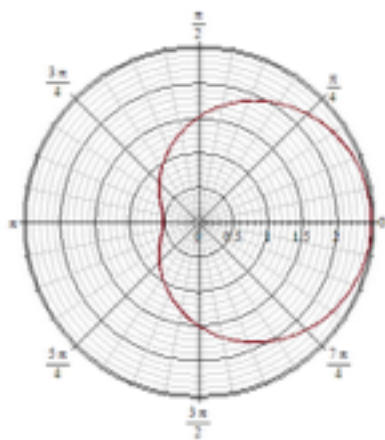
2. $r = .5 + \cos \theta$



3. $r = 1 - \cos \theta$



4. $r = 1.5 + \cos \theta$



5. $r = 2 + \cos \theta$



Problem 5:
Ornament

