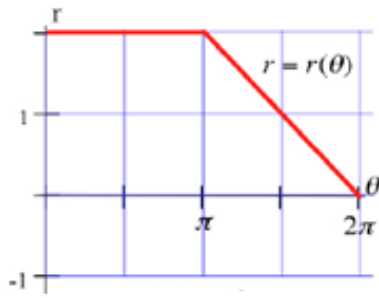
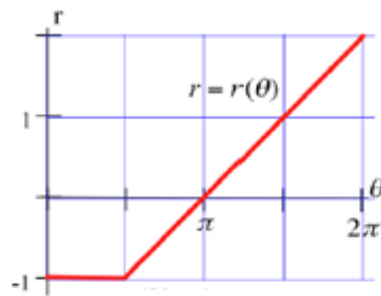
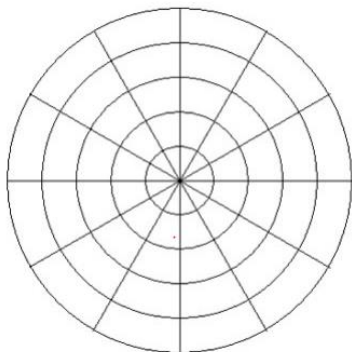


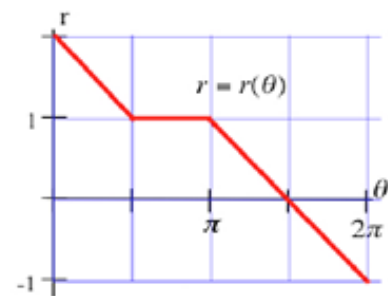
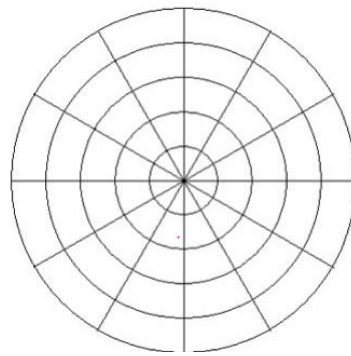
1. The rectangular coordinate graph of a function  $r(\theta)$  is shown. Sketch the polar coordinate graph.



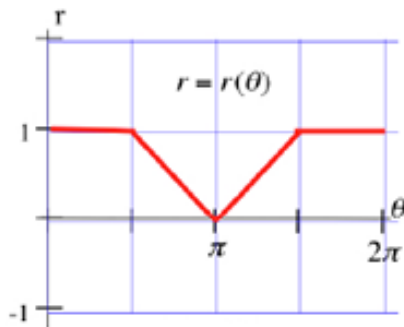
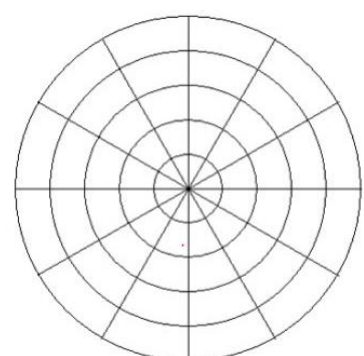
(a)



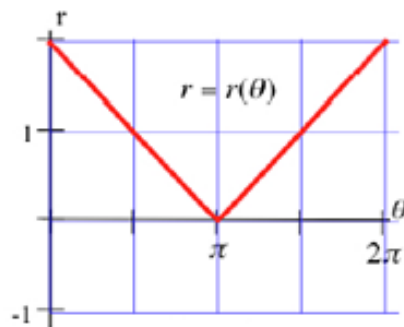
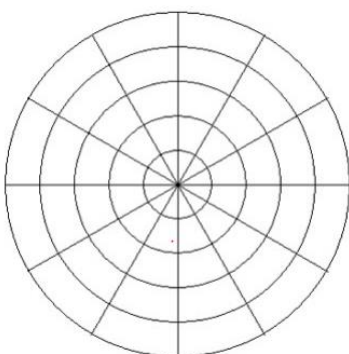
(b)



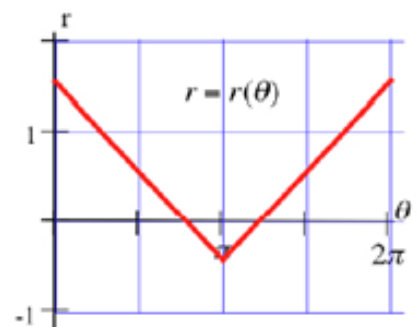
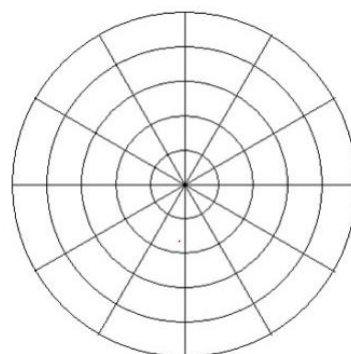
(c)



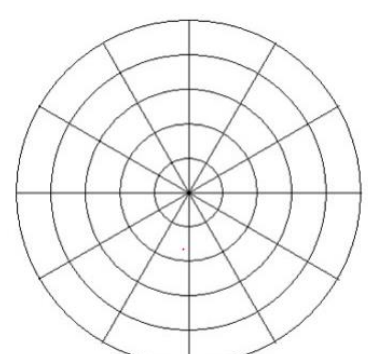
(d)



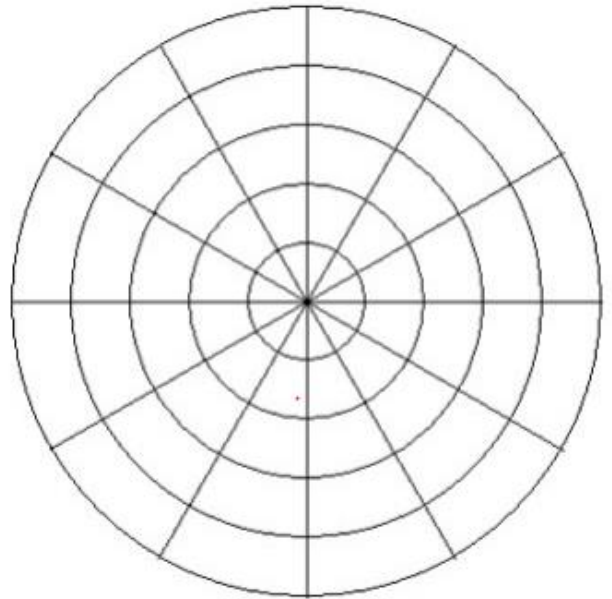
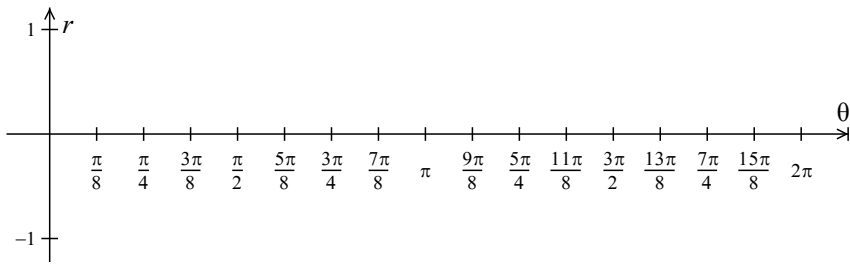
(e)



(f)



2. Graph  $r = \cos(4\theta)$  by first showing the rectangular coordinate graph and then plotting the corresponding polar curve.



3. Find the area enclosed by the polar curve drawn above.

4. Find the area of the yellow shaded region below:

