MATH 132   Midterm 2 practice

1. There are a bunch of problems about work and volume and stuff on the Spring 2010 exam. So those aren't here. Go do those, OK?
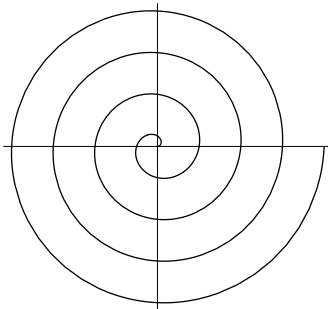
2. Match the following polar equations to their graphs. Please write the letter of the graph in the space preceeding the equation. Note that, although each graph is accurate, two different graphs may be drawn at different scales.
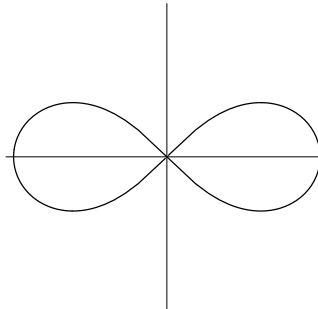
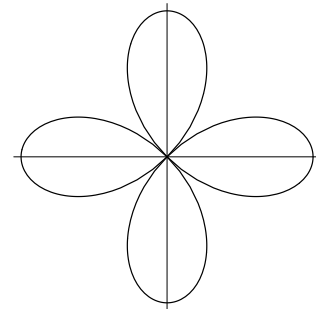—— $r = \cos 2\theta$ —— $r = \theta \ \ (\theta > 0)$ —— $\theta = \dfrac{\pi}{4}$ —— $r = 1 + 2\sin\theta$
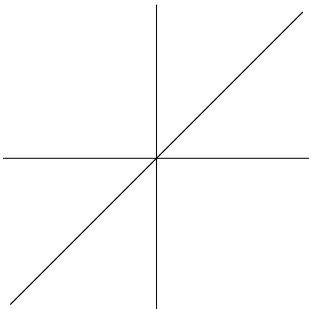

A
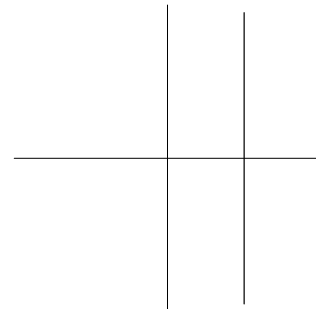

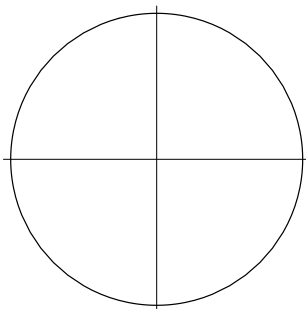
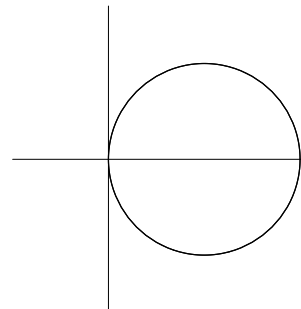**B**

C

D
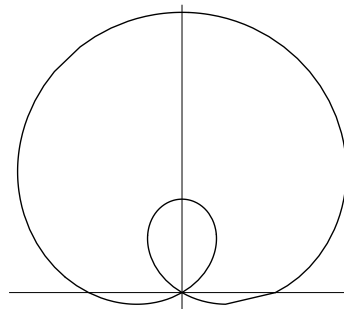
E

F

G

H

47 pts 3. At right is shown the graph of the polar curve

$$r = \frac{\ln \theta}{\sqrt{\theta}} \qquad 1 \leq \theta \leq \frac{7\pi}{2}$$

Calculate the area of the shaded region.