

Math 201-103    Sec: 07    Quiz 2    (A)

Name:.....ID#:.....Ser#:.....

---

**Q.1:** Find area inside  $r = 2$  and outside  $r = 2 \sin(2\theta)$ .

**Q.2:** If  $\mathbf{a} = \langle 2, 3 \rangle$ , and  $\mathbf{b} = \langle -1, 1 \rangle$ . Find a vector of length 4 in the direction of  $2\mathbf{a} - 3\mathbf{b}$ .

**Q.3:** Find scalar and vector projections of  $\mathbf{a} = \langle 2, 3, -1 \rangle$  in the direction of  $\mathbf{b} = \langle -2, 1, -2 \rangle$ .