

No calculators allowed

## Quiz 3

**September 29, 2000**

Name

1. For the polar equation of a conic section given by  $r = \frac{5}{2+3\sin\theta}$ , find the eccentricity, identify the conic, give the equation of the directrix, and sketch the conic. *With the exception of the sketch, be sure to circle the various parts of your answer.*

2. Find the angle between the vectors  $\mathbf{a} = 2\mathbf{i} - \mathbf{j}$  and  $\mathbf{b} = \mathbf{i} + \mathbf{j} - \mathbf{k}$ , giving an exact answer. (Remember the discussion from class about how to give exact answers in this situation.)