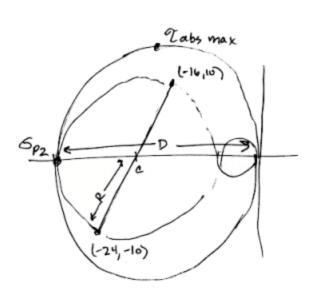
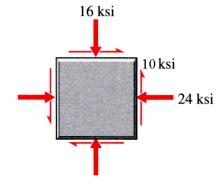
## IDE 110 – Summer 2006 Quiz 14

Name:\_\_\_\_\_

The stresses shown act at a point on the free surface of a stressed body. Determine the absolute maximum shear stress at the point.

Show steps clearly; box the final answer.





$$C = -\frac{24 - 16}{2} = -20$$

$$R = \sqrt{4^2 + 10^2} = 10.77$$

$$O_{P2} = C - R = -30.77 = D$$

$$Z_{abs.\ max} = \frac{D}{2} = 15.39 \text{ ksi}$$