## 9 November

1. (a) $3 / 5$.
(b) $(1,0)$.
2. Maxima at $( \pm 3,0)$ and minima at $(0, \pm 3)$.
3. $1 / 2$.
4. What a stupid question. The center of mass is obviously not $(2,1)$. We compute the mass of the lamina to be $m=32$ and the moments $M_{y}=64$ and $M_{x}=\frac{256}{3}$ so that $(\bar{x}, \bar{y})=\left(2, \frac{8}{3}\right)$.
5. $\int_{0}^{2} \int_{\frac{3}{2} y}^{\frac{3}{\sqrt{2}} \sqrt{y}} d x d y$.
6. Not covered
7. Not covered
