16. The point P has coordinates $(4,k)$.

C is the centre of the circle with equation $(x-1)^2+(y+2)^2=25$.

(a) Show that the distance between the points P and C is given by $\sqrt{k^2+4k+13}$. **2**

(b) Hence, or otherwise, find the range of values of k such that P lies outside the circle. **4**