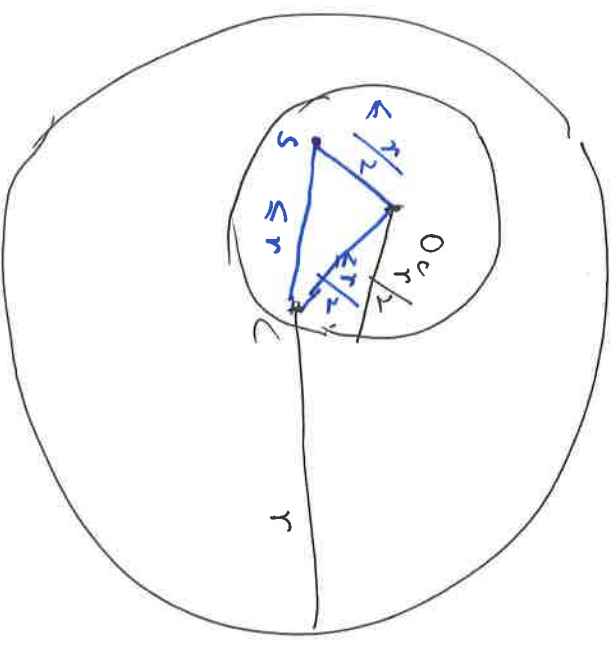


$\forall o_c \in C, \exists o_c \in C^*, \text{ s.t. } c \in B(o_c, \frac{r}{2})$

$\Leftrightarrow o_c \in B(c, \frac{r}{2})$



~~$B(c, \frac{r}{2}) \subset B(c')$~~

Suppose  $c$  is added to  $C$  before  $c'$ .

$\Rightarrow c' \notin B(c, r)$

~~$\Rightarrow c, c' \in B(o_c, \frac{r}{2})$~~

$\Rightarrow d(c, c') \leq d(c, o_c) + d(o_c, c)$

$\leq \frac{r}{2} + \frac{r}{2} = r$

