The $k$-centre problem
\[ k = 2 \]
$k = 4$
$k = 5$
Approximation greedy algorithm $k$-centre problem
Choice 1: Any site
Choice 2: Site most inconvenienced by choice 1.
Choice 3: Site most inconvenienced by choices 1 and 2.
Choice 4: Site most inconvenienced by choices 1, 2, and 3.
Radius of the 5 centres chosen by the greedy algorithm

\( i = 5 \)
$k = 5$

Radius of an optimal set of 5 centres