$$
\begin{aligned}
&\Pr[z_i \text{ or } z_j \text{ is the first pivot chosen from } Z_{ij}] \\
&\quad = \Pr[z_i \text{ is the first pivot chosen from } Z_{ij}] \\
&\qquad + \Pr[z_j \text{ is the first pivot chosen from } Z_{ij}] \\
&\quad = \frac{1}{j-i+1} + \frac{1}{j-i+1} = \frac{2}{j-i+1}
\end{aligned}
$$