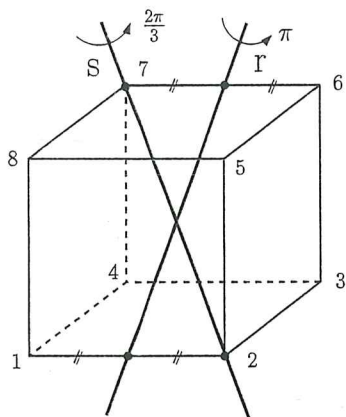


Name and Surname:
 Student Number:

Math 466 - Fall 2019 - METU

Quiz 2

The vertices of a cube are labelled 1 to 8 as shown below. Find the elements of S_8 which correspond to the rotational symmetries r and s .



$$r \mapsto (12)(67)(38)(45) \in S_8$$

$$s \mapsto (153)(486) \in S_8$$

$$\left(\begin{array}{l} rs = (1432)(5876) \\ sr = (1258)(3674) \end{array} \text{ in } S_8 \right)$$

Compute rs and sr by writing the label of each vertex in the diagram below. Determine if rs and sr are equal.

